JULY, 1969

sea spray

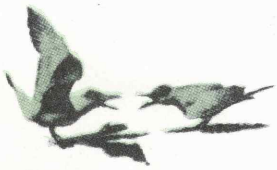
30c

POWER & SAIL

In This Issue . . .

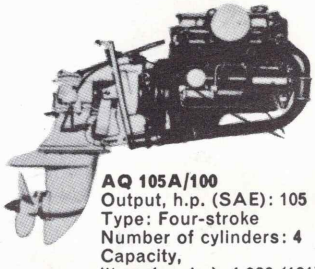
DESIGN COMPETITION ★ THE NEW 'PLYWOOD RULE'

NEW!

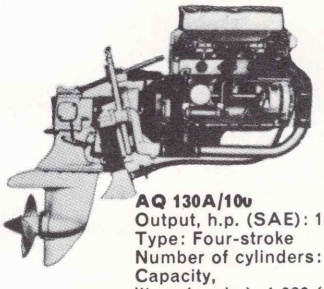


THE VOLVO PENTA AQUAMATIC PROGRAMME...

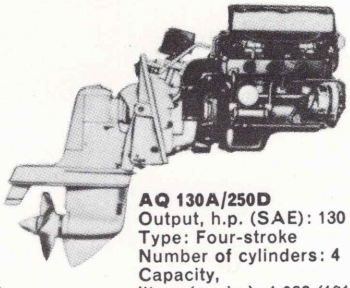
The Aquamatic family has now been developed even further. Two completely new engines—130 and 165 h.p. SAE and also the model 250 drive have been added. Volvo Penta Aquamatic is the most advanced and best-tested I/O power pack on the market. Designed by a company with 60 years' experience of marine engines and built for the most demanding marine conditions. With dependability and durability based on high precision manufacture. Spares and service all over the world.



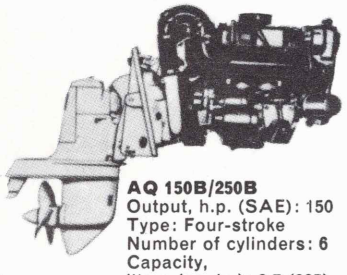
AQ 105A/100
Output, h.p. (SAE): 105
Type: Four-stroke
Number of cylinders: 4
Capacity,
litres (cu. in.): 1.986 (121)
Weight,
approx., kg (lb.): 210 (460)



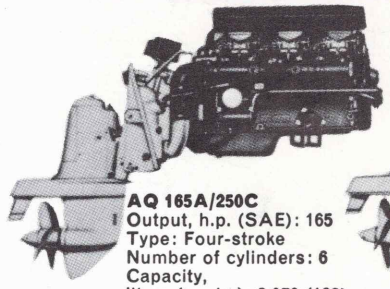
AQ 130A/100
Output, h.p. (SAE): 130
Type: Four-stroke
Number of cylinders: 4
Capacity,
litres (cu. in.): 1.986 (121)
Weight,
approx., kg (lb.): 210 (460)



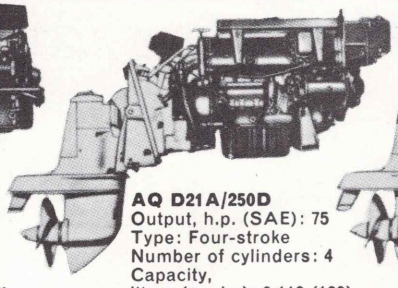
AQ 130A/250D
Output, h.p. (SAE): 130
Type: Four-stroke
Number of cylinders: 4
Capacity,
litres (cu. in.): 1.986 (121)
Weight,
approx., kg (lb.): 230 (510)



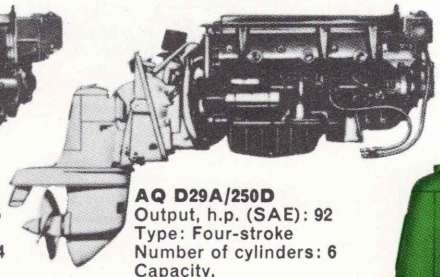
AQ 150B/250B
Output, h.p. (SAE): 150
Type: Four-stroke
Number of cylinders: 6
Capacity,
litres (cu. in.): 3.7 (225)
Weight,
approx., kg (lb.): 300 (660)



AQ 165A/250C
Output, h.p. (SAE): 165
Type: Four-stroke
Number of cylinders: 6
Capacity,
litres (cu. in.): 2.979 (182)
Weight,
approx., kg (lb.): 280 (615)



AQ D21A/250D
Output, h.p. (SAE): 75
Type: Four-stroke
Number of cylinders: 4
Capacity,
litres (cu. in.): 2.112 (129)
Weight,
approx., kg (lb.): 300 (660)



AQ D29A/250D
Output, h.p. (SAE): 92
Type: Four-stroke
Number of cylinders: 6
Capacity,
litres (cu. in.): 2.92 (178)
Weight,
approx., kg (lb.): 355 (785)

With the outstanding new 250 outboard drive

Outstanding in many ways—for example: a new range of ratios. There is always a 250 drive that suits you perfectly and gives you the best possible performance from both boat and engine. Newly designed retaining pawl—patents pending all over the world. It releases the drive immediately in the case of collision with underwater obstacles but, at the same time, prevents drive "kick up" when slowing down and reversing. The quiet-running "Silent shift" cone clutch—another Volvo Penta world patent—has been further reinforced. And last but not least: the exceptionally good resistance to corrosion. The 250 drive is the only one in the world completely designed and built for salt water. The special blue-grey protective paint, with greater resistance than any other paint earlier, is only *one* example. Another consists of the rust-proof thread inserts of the "Heli Coil" type in the screw holes. Outstanding—from beginning to end.

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AQUAMATIC

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SWEDEN

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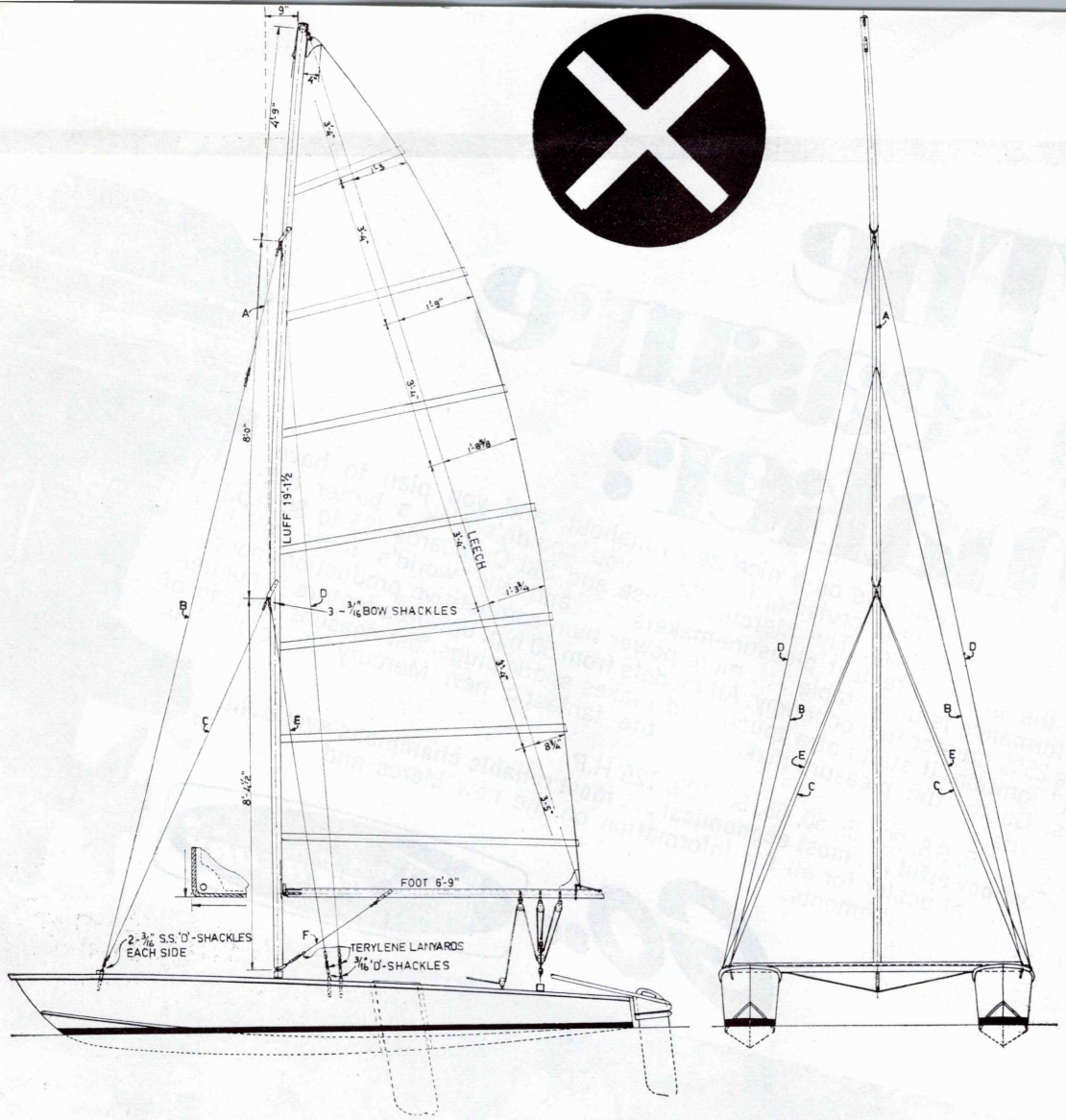

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The Aquarius "Mouse Trap" has no frames, stringers, chines or keels. It is constructed from sheet ply on one simple jig which is used for both hulls. Cross beams are bolted to hulls for easy dismantling for winter storage.

● CLUBS PLEASE NOTE — "Mouse Trap" Class Rules are formulated and are included in the full brochure, obtainable without obligation from Pelin Plans Ltd. We will also be pleased to quote discount prices of "Mouse Trap" plans for clubs.

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Please send me, without obligation, a free "Mouse Trap" plans brochure, with club rules.

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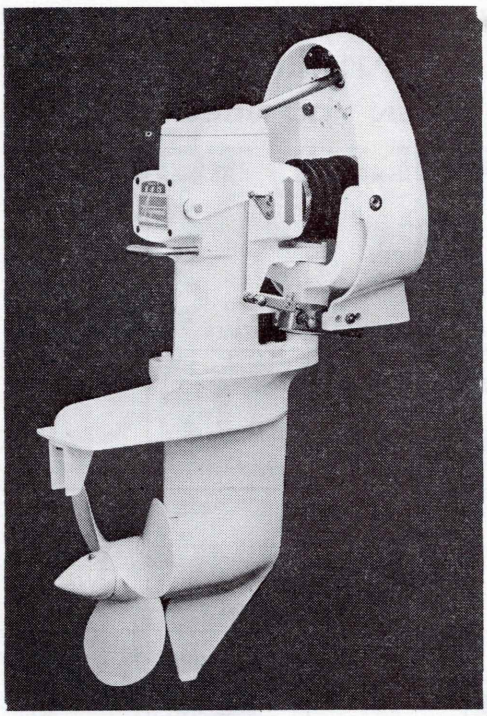

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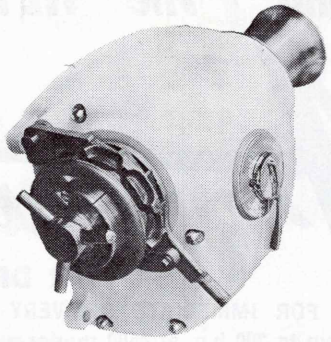

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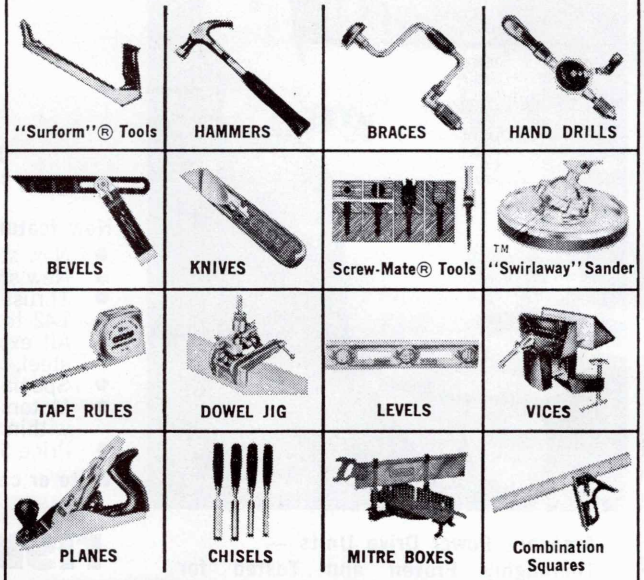

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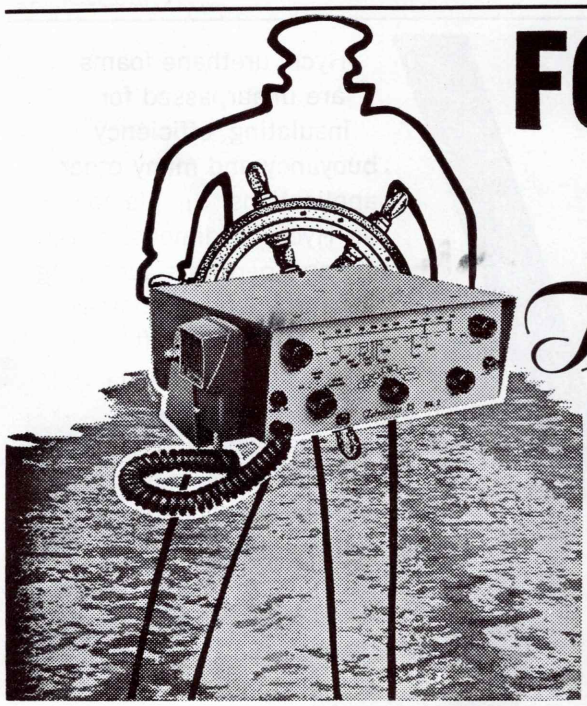

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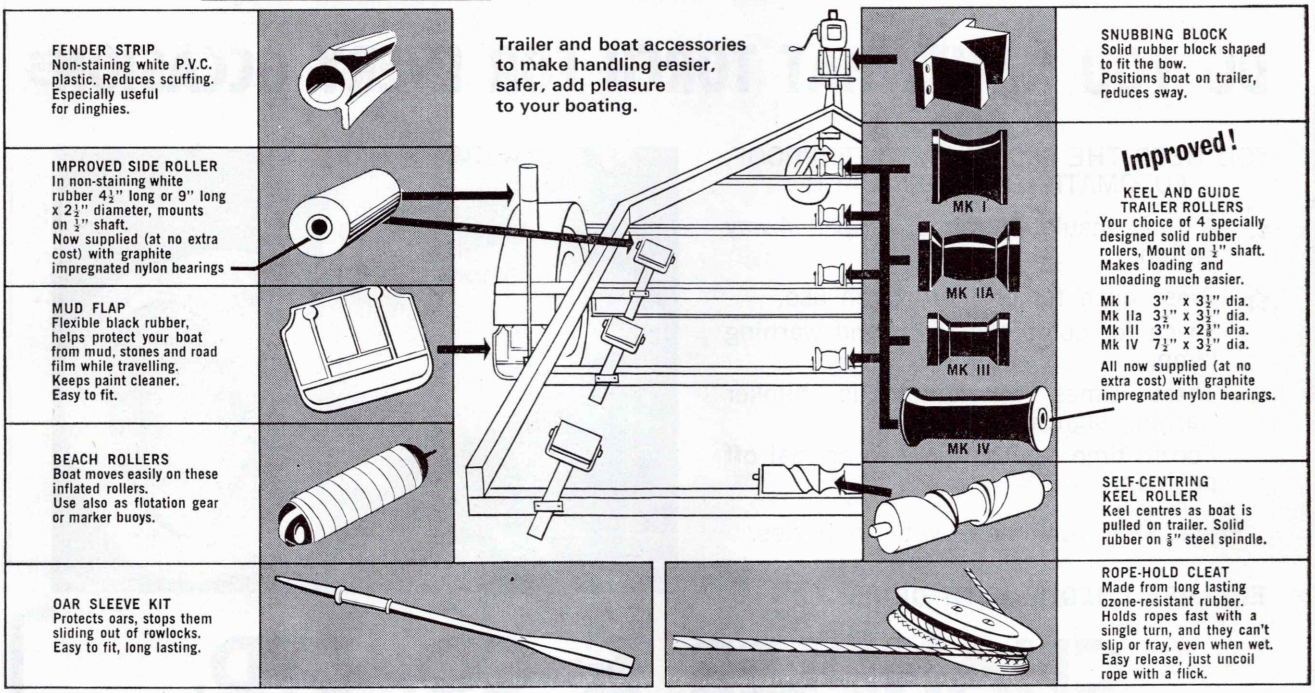
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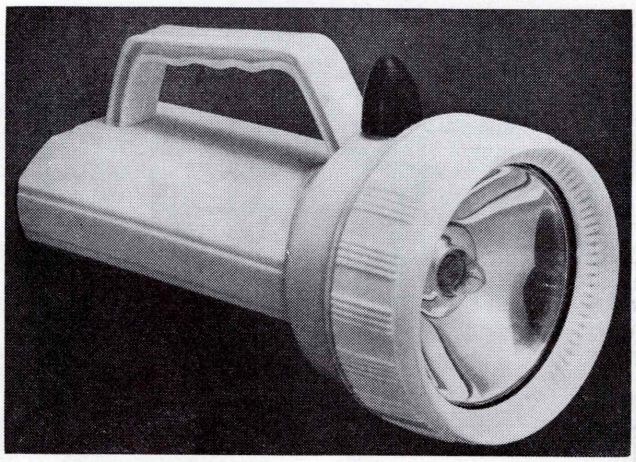

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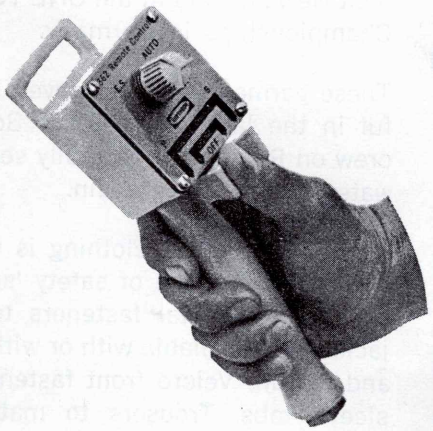

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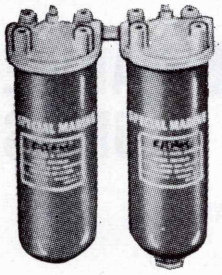

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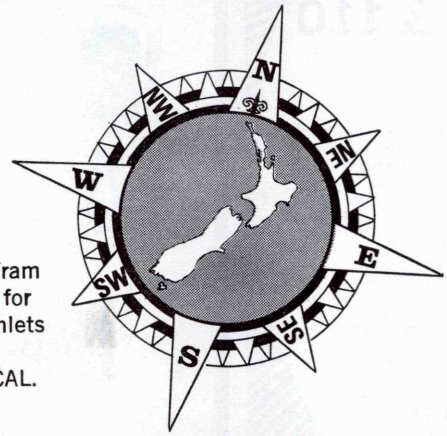

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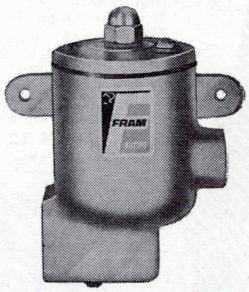

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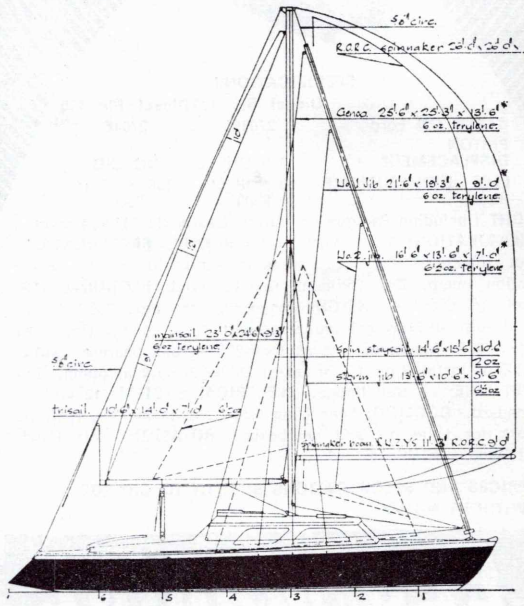
33ft 3½in	Saraband	5 berth	$84.00	$105
37ft	Salient	5 berth	$84	$105
40ft 2in	Sequoiah	6 - 7 berth	$96	$120
45ft	Sirius	7 - 9 berth	$96	$120

Overseas prices include AIRMAIL POSTAGE



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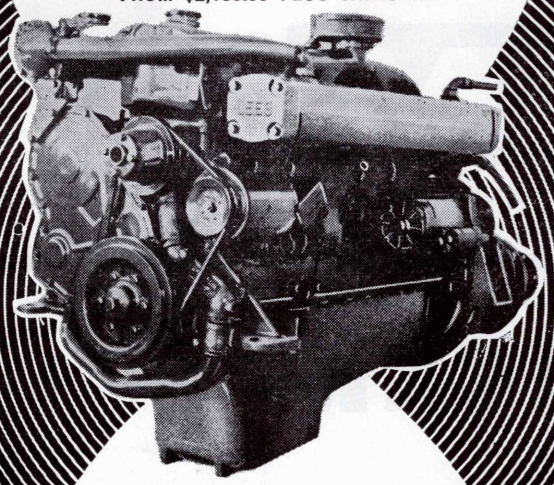
FROM $2,130.00 PLUS SALES TAX



SPECIFICATIONS

	Diesel Six 100	Diesel Six 110
BASED ON Ford	2703E	2704E
PISTON DISPLACEMENT	330 CID	363 CID
LEES DYNAMOMETER Rated	98 SHP at 2500	108 SHP at 2500

WEIGHT (including Paragon or Warner Gearbox): 1550lbs approx. **CONFIGURATION:** 6 cyl. Vertical Inline OHV. **SPECIFICATION:** Direct Injection 16.5:1 Compression ratio, Simms Mimemec Injection pump, Dry Cylinder liners. **FUEL REQUIREMENTS:** Diesel fuel Class A. **HEIGHT** above c/shaft centre 23¼". Width 24". Depth at Flywheel below c/shaft 9¼". Length (incl. DD G/Box) 58". Mounting bolt centres 22" across bearers. **MAX. ANGLE** of installation 15° or up to 25° with special pump. **EXHAUST LINE:** 2" BSP flange. **ELECTRICAL SYSTEM:** 12 volt — E standard. **COOLING:** Lees Long Life Heat exchanger, with oil coolers for Lube oil and gearboxes. **ROTATION:** Left Hand. Right Hand available to order.

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LM/D100-110

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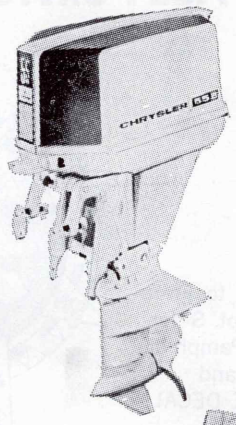

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80 h.p. – 335 h.p.
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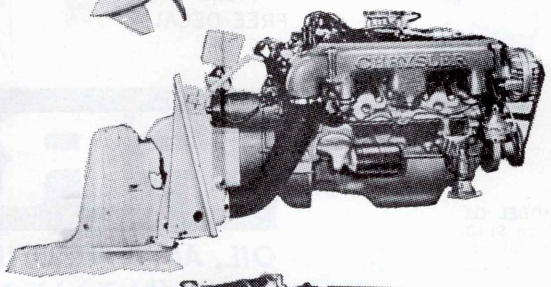

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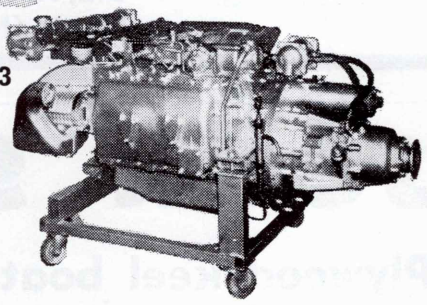
135 h.p.
Unsurpassed economy and power.
27ins. high.



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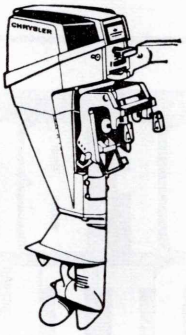
Ready to GO – for you!

The CHRYSLER Line for '69



Four new horse-power ratings are the first of many sparkling surprises for you, in the Chrysler Line of Outboards for 1969.

A new premium-performance 85, with three cylinders, three carburettors, and renowned Chrysler 'Magnapower' capacitor discharge ignition, fits neatly into line between the mighty, muscular 105 and a new, economical 70.

Two new under 10's — the new 5 and 7 — combine big-engine Chrysler features with light weight and absolute economy. A grand total of 39 Chrysler Outboards for '69 are waiting to GO—for you!

ADD UP THE FEATURES—ADD UP THE ADVANCES—THEN ADD UP THE ADVANTAGES CHRYSLER OUTBOARDS HAVE FOR YOU!

THE POWER-PACKED CHRYSLER INBOARD LINE FOR '69

Add three new inboards and one new inboard/outdrive to the already highly successful range of Chrysler inboards — and you have the Chrysler Line for '69!

A new 225 hp V8; a new 155 hp 'Slant-Six'; and a speedy new 200 hp V8 line up to give you twelve inboards.

The Chrysler Inboard/Outdrive line gives you a choice of eight units, including the all-new Chrysler 155.

BIG CHRYSLER FEATURES — from the smallest to the biggest Chrysler Outboards!

Chrysler 3.5
Lightweight (only 29lb)
Easy starting
360° pivot for complete steering control
Air-cooled
Long-shaft model available.

NEW Chrysler 5
Lo-Profile design (you can fish over the stern!)
Full gearshift (forward, neutral, reverse)
Spline-drive prop (no more broken shear pins)
Depth-minder Drive (prop adjusts for shallow water)

NEW Chrysler 7
Lo-Profile design
Full gearshift with safety interlock
Spline-drive prop
Depth-minder Drive
Stowaway tiller
Long-shaft model available

Chrysler 9.9
Lo-Profile design
Lightweight (56lb)
Spline-drive prop
Full gearshift
Twist throttle
Stowaway tiller
No-trap exhaust
Models include Autoelectric

Chrysler 20
New styling
Efficient sound-proofing
Stronger, quieter, more economical than ever
Models include Autoelectric

Chrysler 35
Fuel Economiser throttle
Thermostatic cooling
Dual safety ignition
Drop-forged aluminium brackets
Electric or manual
Standard or long-shaft

Chrysler 45
Double-safe ignition
Thermostatic control
Exceptional soundproofing
Fuel Economiser throttle

Chrysler 55
Water-cooled cylinder head
V-reed valves, large-venturi carbs
Magnapower ignition (optional)
Big-bore, short-stroke design
Lightweight (140lb)
Ideal for skiing, racing, fishing

NEW Chrysler 70 & 85
Three cylinders
Three carbs (one per cylinder!)
Magnapower ignition!
Big-bore design
Thermostatic control
Water-cooled underwater exhaust
Optional lower racing unit
Fuel Economiser throttle

Chrysler 105
Four cylinders, two carbs
Magnapower ignition
Big-bore design
Thermostatic control
Water-cooled underwater exhaust
Optional lower racing unit
Fuel Economiser throttle

Sole NZ Distributors:
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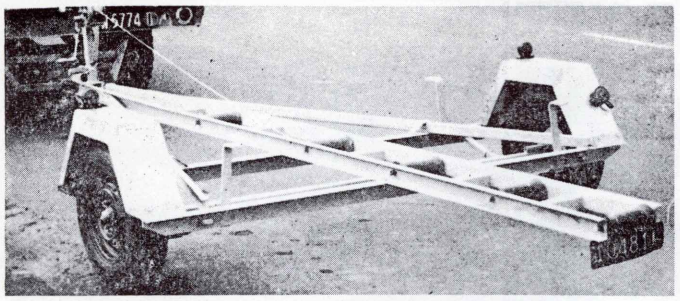
Master dealers: Haywood Motors Ltd. Whangarei; Rutherford Marine Ltd. Otahuhu (Auckland main dealer); McElwee Motors Ltd. Hamilton; Hillsdene Motors Ltd. Tauranga; Townshend Motors Ltd. Napier; Jolly & Mills Ltd. Palmerston North; Anthony Motors (Hutt) Ltd. Lower Hutt; Cooper Henderson Motors Christchurch; Gardner Motors Ltd. Dunedin.



MODEL I 1 16' TRAILER SAILER

Construction of heavy gauge pressed steel channel. Strong back keel support with five wide rubber rollers. Four side brackets midships for timber and padding. 13" wheels with 520 x 13 4-ply tyres.

Overall dimension 15' x 7' 9".

Capacity 12 cwt. Unladen weight 450 lb.

Also available is model I 2 for 18' TRAILER SAILER. Construction and details generally the same as Model I 1, but it is instead fitted with 13" wheels and 600 x 13 6-ply tyres. Overall dimension 18' x 8'. Capacity 18 cwt. Unladen weight 500 lb.

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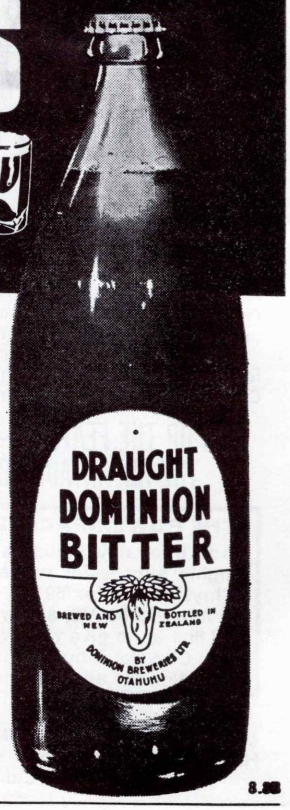

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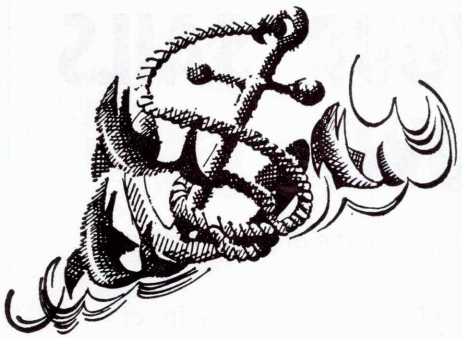

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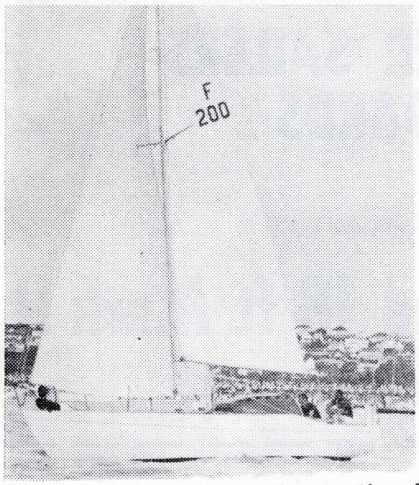

OVERALL WINNER AUCKLAND TO SUVA RACE 'CASTANET' IS AN OVERALL EPIGLASS BOAT

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Overall winner of this year's Auckland/Suva race, "Castanet" is exemplary in this respect. A double-ender 30ft sloop and sister to Cadence, who won the '66 Sydney/Hobart race, "Castanet" is a most efficiently designed, built, finished — and crewed — craft.

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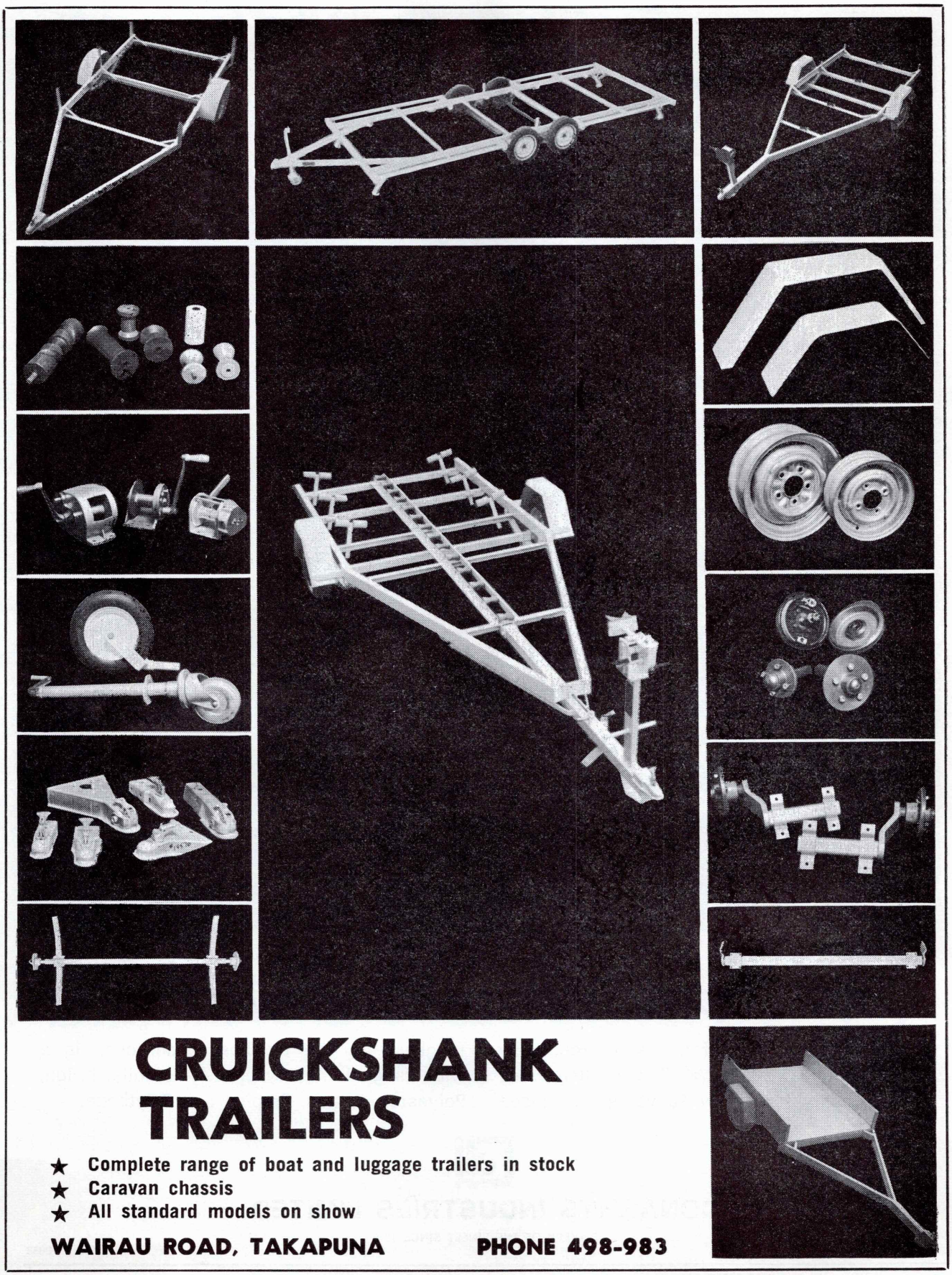
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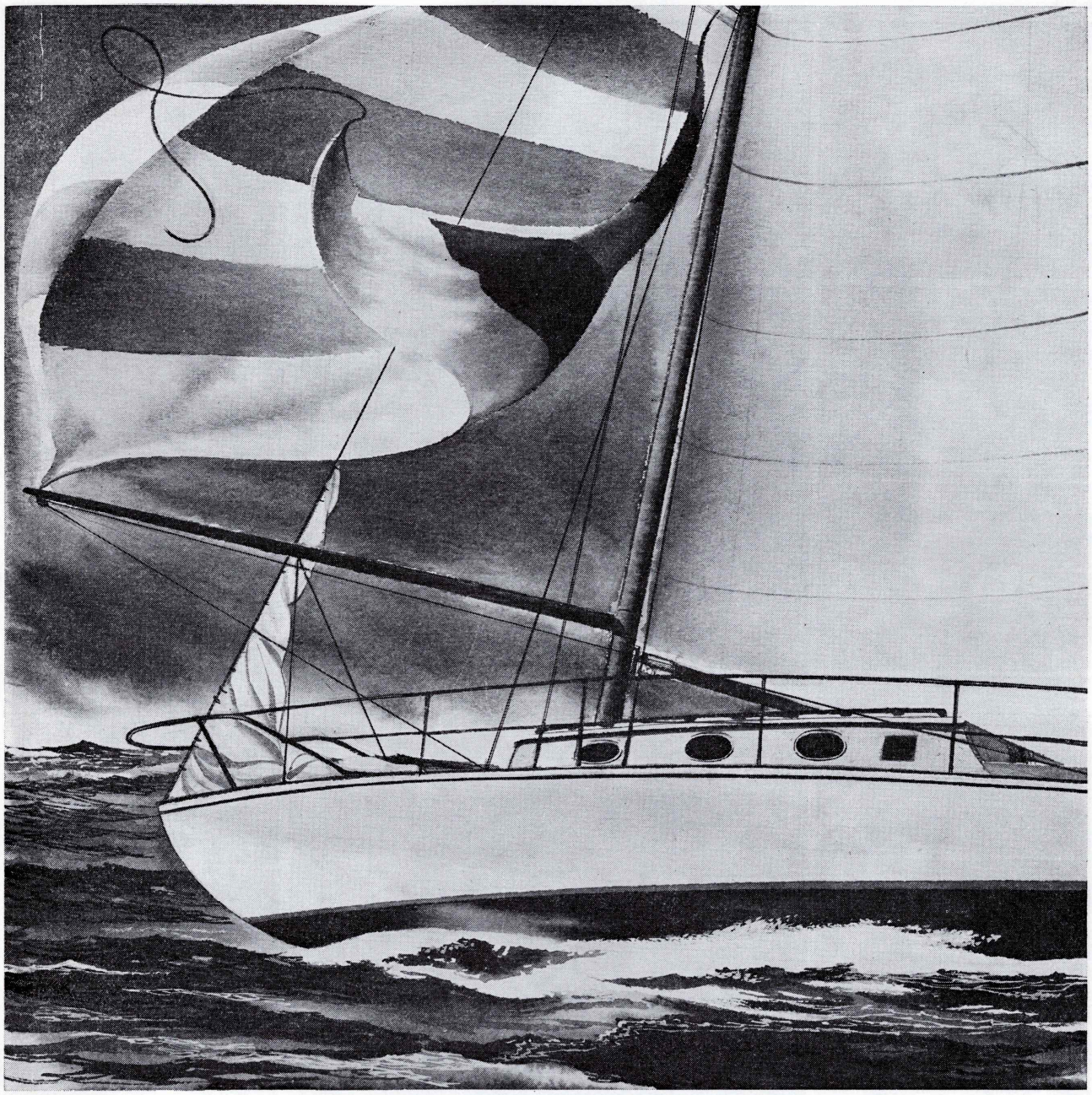

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MC697E

- HARTLEY'S FULL SIZE BOAT PLANS -

		N.Z. Price	Aus-tralian	Over-seas
HARTLEY 20° DEEP V SERIES OUTBOARD (Plywood)				
12' 6" x 6' 1"	Plan No. 61	$15	$18	£9
14' 6" x 7' 0"	Plan No. 62	$18	$24	£12
17' 0" x 7' 6"	Plan No. 63	$30	$36	£18
20' 0" x 7'11"	Plan No. 65	$39	$48	£24
HARTLEY 20° Deep V Series Inboard				
12' 6" x 6' 1"	Plan No. 71	$15	$18	£9
14' 6" x 7' 0"	Plan No. 72	$18	$24	£12
17' 0" x 7' 6"	Plan No. 73	$30	$36	£18
20' 0" x 7'11"	Plan No. 75	$39	$48	£24
25' 0" x 10'0"	Plan No. 77	$54	$66	£33
15° DEEP V FLARED BOW OUTBOARDS				
NEW SPRITE 12' 6" x 5' 10" — Open six-seater		$12	$15	£7/10/-
NEW GADABOUT 14' 6" x 6' 9" — Cabin and two bunks		$15	$18	£9
NEW VIVID 15' 6" x 7' 3" — Cabin, two bunks and cockpit seats		$18	$24	£12
NEW SUPERSTYLE 17' 5" x 7' 9" — Cabin, bunks, seats, galley and toilet		$24	$30	£15
NEW POWERFLITE 19' 4" x 7' 10" — Cabin, bunks, seats, galley and toilet		$30	$36	£18
15° DEEP V FLARED BOW INBOARDS (Plywood)				
NEW GLIDE 12' 6" x 5' 10" — Open six-seater		$12	$15	£7/10/-
NEW JOYTIME 14' 6" x 6' 9" — Cabin and two bunks		$15	$18	£9
NEW CRUISETTE 15' 6" x 7' 3" — Cabin, bunks, seats, galley and toilet		$24	$30	£15
NEW FLARELINE 19' 5" x 7' 10" — Cabin, bunks, seats, galley and toilet		$30	$36	£18
FLARED BOW LAUNCHES (Plywood)				
15° RIPPLE 21' 9" x 7' 10" — Trailable Launch. Four bunks, galley, toilet		$30	$39	£19/10/-
10° NEW CHARM 23' 10" x 9' 5" — Cabin launch. Five bunks, seats, galley and toilet		$42	$51	£25/10/-
10° NEW TIDESONG 27' 3" x 10' — Launch. Seven bunks, seats, galley and toilet		$48	$57	£28/10/-
10° NEW HARMONY 32' x 12" — Launch. Six bunks, dinette, seats, lockers, galley, etc.		$66	$78	£39
10° MARKSMAN 36' x 12' — Clothes lockers, dinette, six bunks, galley, toilet, etc.		$78	$90	£45

	Cost of Materials	N.Z.	Aust.	Plan Price O'seas
CANOES				
12' 0"	$NZ25	$3.90	$5.10	51/-
14' and 16' 0"	$NZ30	$4.80	$6.00	60/-
SURF BOARDS				
Skipper 7' 6"	$NZ16	$3.60	$4.50	45/-
Skipper 8' 6"	$NZ20	$3.60	$4.50	45/-
Skipper 9' 6"	$NZ20	$3.60	$4.50	45/-
Skipper 9'10"	$NZ24	$3.60	$4.50	45/-
SURF SKIS				
Car Top Surf Ski 11' 9"	$NZ32	$6.00	$7.50	75/-
Two Man Surf Ski 13' 9"	$NZ40	$6.00	$7.50	75/-

Each Plan has the frame, stem and fin, drawn full size.

BOOKS			
HARTLEY'S NEW DEEP V BOATBUILDING	$1.95	$1.95	20/-
BOATBUILDING WITH HARTLEY	$1.25	$1.50	15/-

	N.Z. Price	Aus-tralian	Over-seas
YACHTS, MOTOR SAILERS (Plywood)			
CHUCKLES 18' x 8' — Centreboard yacht	$15	$18	£9
POWER SAILER 24' x 9" — Cruising yacht	$42	$51	£25/10/-
STARDRIFT 28' 6" x 9' 4" — Cruising yacht	$48	$60	£30
CONCRETE BOATS (Motor Sailers)			
TASMAN 27' 3" x 9" 0" x 3' 9" —	$78	$90	£45
QUEENSLANDER 33' 3" x 10' 9" x 4' 6" —	$96	$114	£57
SOUTH SEAS 37' 9" x 11' 3" x 4' 9" —	$114	$138	£69
CONCRETE LAUNCHES			
"COASTAL 38" 38' 0" x 12' 0" x 3' 6" —	$120	$144	£72
TRIMARANS			
SPARKLE 28' 6" x 15' 9" — Cr. Trimaran	$48	$60	£30
LIVELY 35' x 20' — Cruis. Trimaran	$72	$84	£42
HARTLEY TRAILER SAILERS (Plywood)			
SAFE TRAILER 9' x 4' 8" — Unsink. Sailing c'board dinghy	$9	$12	£6
TRAILER SAILER 12: 12' x 5' 8" — Cabin centreboard day sailer	$12	$15	£7/10/-
TRAILER SAILER 14: 14' x 6' 6" — Cabin centreboard, two bunks	$15	$18	£9
TRAILER SAILER 16 — Cabin, centreboard, two bunks	$18	$24	£12
TRAILER SAILER 18: 18' x 8' — Cabin centreboard, three bunks and galley	$24	$30	£15
TRAILER SAILER 21: 21' x 7' 11" — Four bunks, centreboard or fixed keel, toilet and galley	$36	$42	£21
ALL HARTLEY "TRAILER SAILERS" TAKE OUTBOARDS			
SURFSKI. For Spearfishing. 9' —	$3	$4	£2
COLD MOULDED DINGHY 12' x 4' —	$6	$8	£4

NEW ECONOMY SERIES NON FLARED BOW				
CAR TOP DINGHY	6' 6" and 7' 3"	$4.50	$4.50	£4/ 5/-
NEW HUSKY Outboard	10' 6" x 5' 0"	$7.50	$9	£4/10/-
NEW SPEARFISH Outboard	12' 6" x 5' 3"	$9	$12	£6
NEW CREST Inboard	12' 6" x 5' 3"	$9	$12	£6
SCAMP Outboard	14' 0" x 6' 1"	$12	$15	£7/10/-
ALERT Inboard	14' 0" x 6' 1"	$12	$15	£7/10/-
NEW BLUE FIN Outboard	15' 0" x 6' 6"	$15	$18	£9
NEW TUNA Inboard	15' 0" x 6' 6"	$15	$18	£9
NEW SPORTWIN Inboard	15' 0" x 6' 6"	$15	$18	£9
OLD FAVOURITES				
GADABOUT Inboard	14' 6" x 6' 3"	$12	$15	£7/10/-
JOYTIME Outboard	14' 6" x 6' 3"	$12	$15	£7/10/-
CHERRYWINE Outboard	17' 0" x 7' 0"	$15	$18	£9
TEENA Inboard	17' 0" x 7' 0"	$15	$18	£9
CHASER Outboard	19' 0" x 7' 0"	$15	$18	£9
PACEMAKER Inboard	19' 0" x 7' 0"	$15	$18	£9
SURFSKI Paddles	9' 0" x 3' 0"	$3	$5	£2/10/-
PRAAM Oars and Outboards	7' 8" x 4' 0"	$3	$5	£2/10/-

All plans are complete with construction drawings, lists of materials and full size patterns

HARTLEY'S BOAT PLANS are available from

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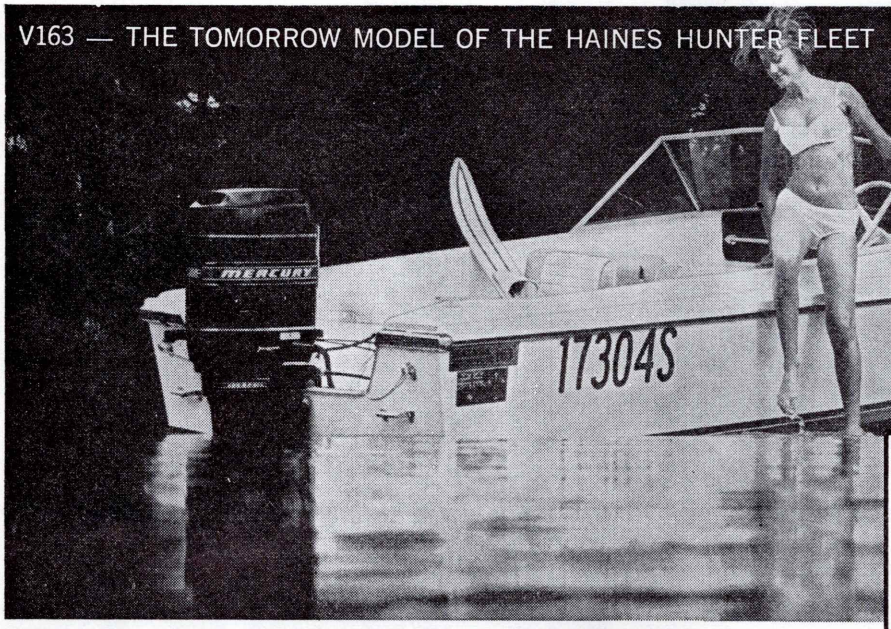
V163 — THE TOMORROW MODEL OF THE HAINES HUNTER FLEET



V163 Specifications

Overall length	15′ 3″
Beam	6′ 3″
Cockpit Depth	2′ 2″
Maximum Freeboard	3′
Power up to	130 H.P.
Total Weight	650 lbs (approx)
Seating	4 people

V19 Specification

Gunwale length	19′ 6″
Beam	7′ 4″
Draught	1′
Seating	up to 8 (Opt.)
Total Weight	1300 lbs approx.
Power from	65 to 300 H.P. inboard or outboard
Freeboard	22¼″ aft., 31½″ fwd

V17 — ROOMY FAMILY RUNABOUT WITH THE HAINES HUNTER RACING PEDIGREE.

Haines Hunters built-in features.

***Safe** — High top deck with full length coaming . . . greater cockpit depth. *Built-in positive buoyancy. *Faster patented "Hydrolift" Deep V-hull . . . literally slices waves, minimises pounding bounce and roll. *Luxuriously appointed with standard equipment . . . many optional extras.

MANUFACTURED & DISTRIBUTED IN N.Z. BY JOHN HAINES LTD, BOX 31, MASTERTON.

V17 Specifications

Overall length	17′ 1″
Beam	6′ 9″
Cockpit depth	3′ 2″
Maximum Freehold	3′
Power up to	220 H.P. inboard or outboard
Total Weight	1100 lb (approx.)
Draught	1′
Seating	4 or 6

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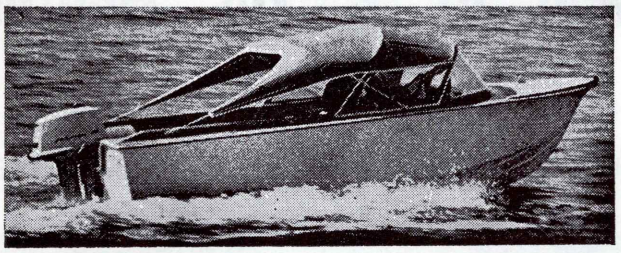
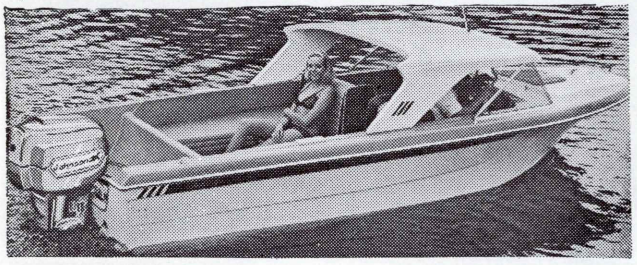


SEA NYMPH V-13

These fibreglass 13 footers can be seen all over New Zealand. They need no introduction, their quality, reputation and performance speaks for itself.



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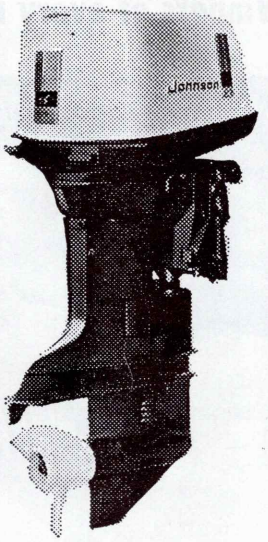

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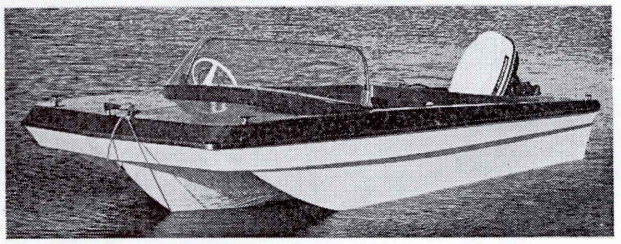

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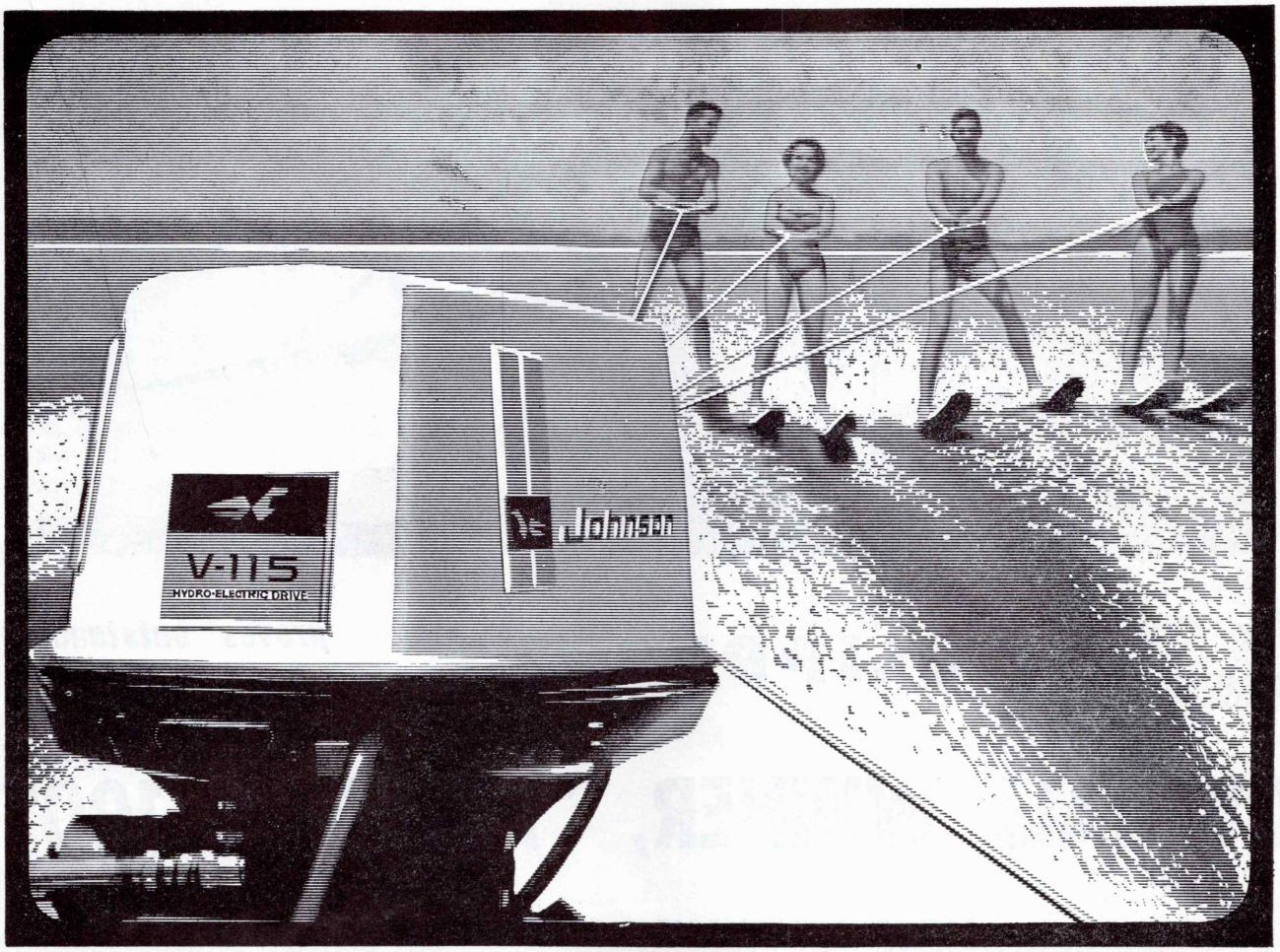

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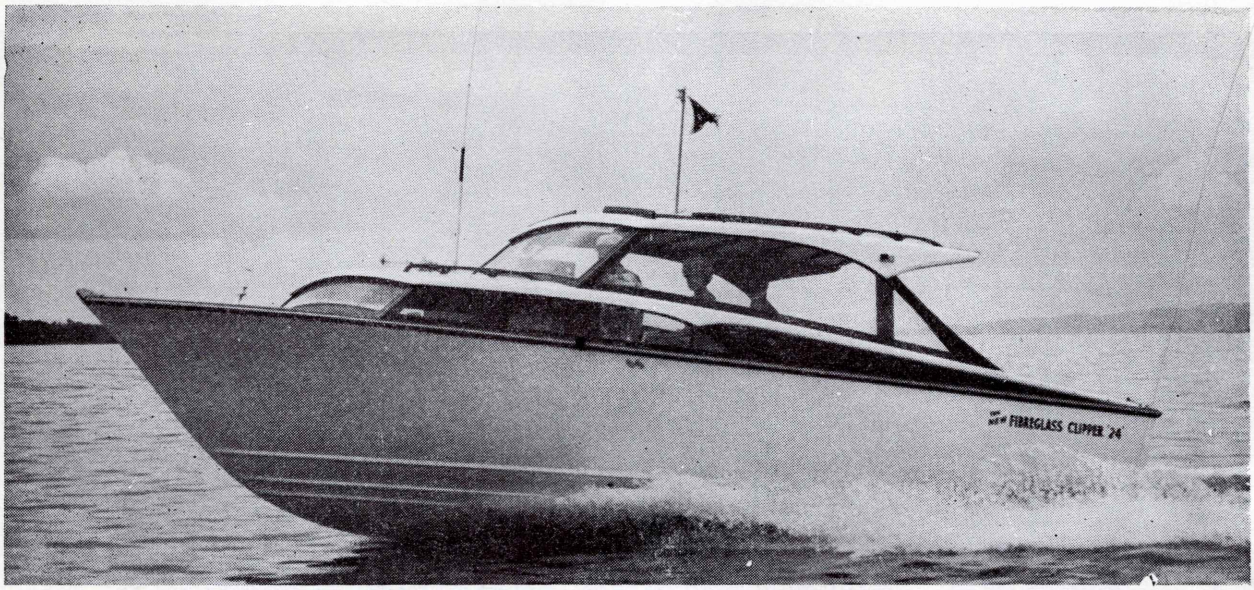

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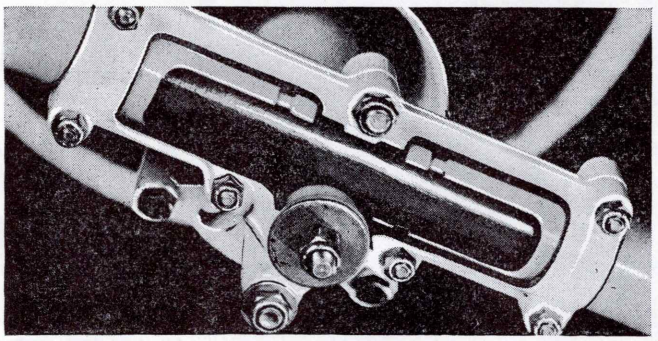
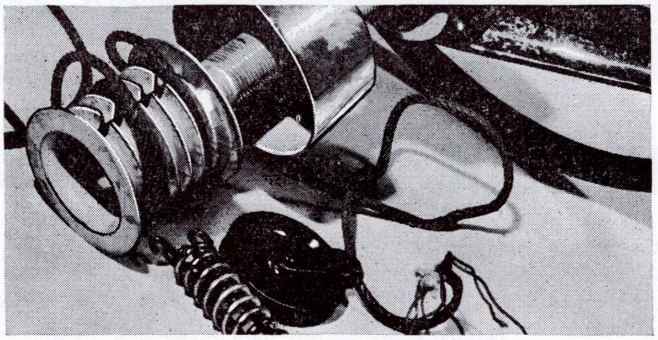


and other steering systems.



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POWER and SAIL

Volume Twenty-Four, Number Six

July, 1969

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COVER

Crew member Peter Crellin waited for just the right moment to release the camera shutter on Jack Smith at the wheel of Coruba as she climbs out of a trough during the Auckland - Suva race

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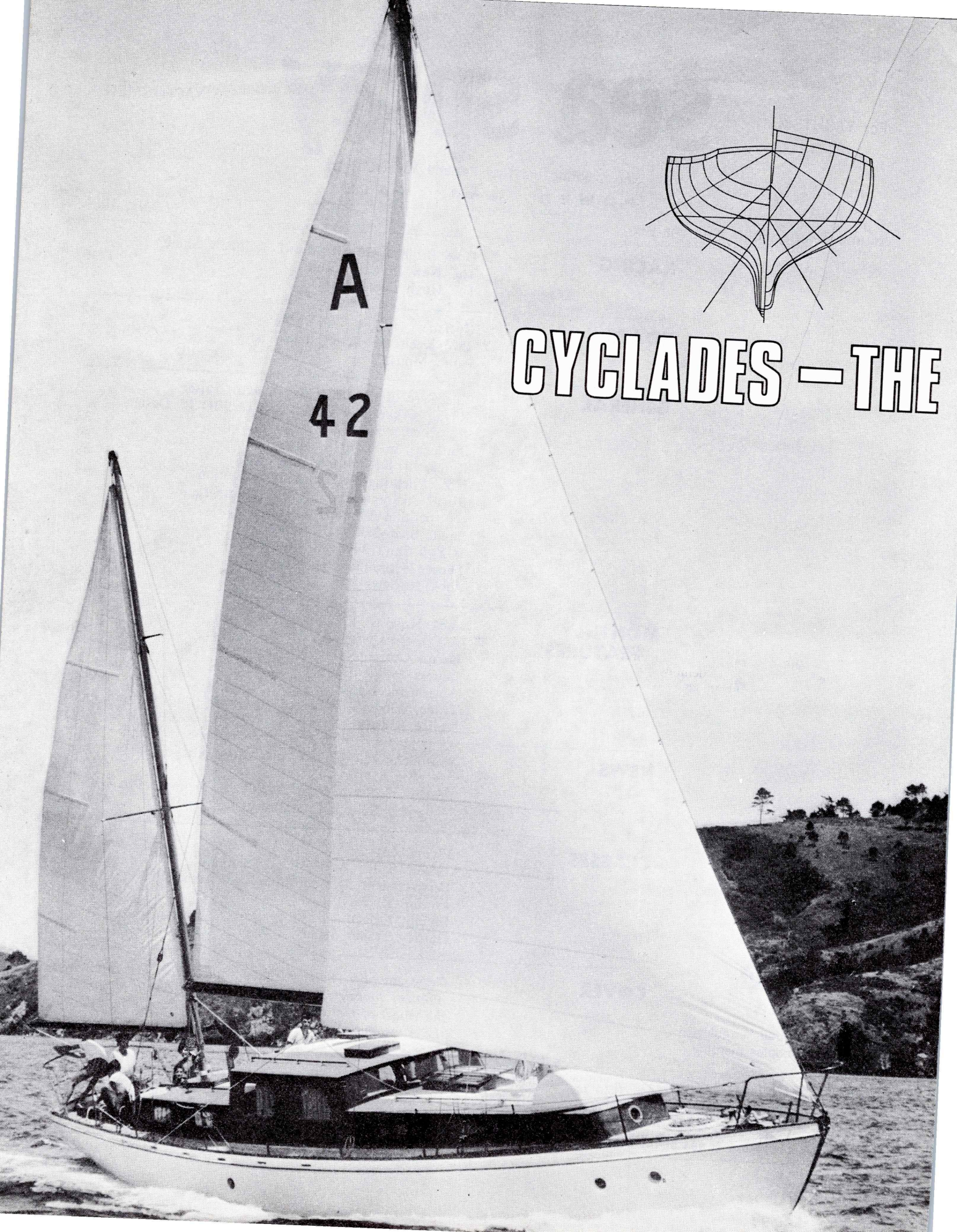
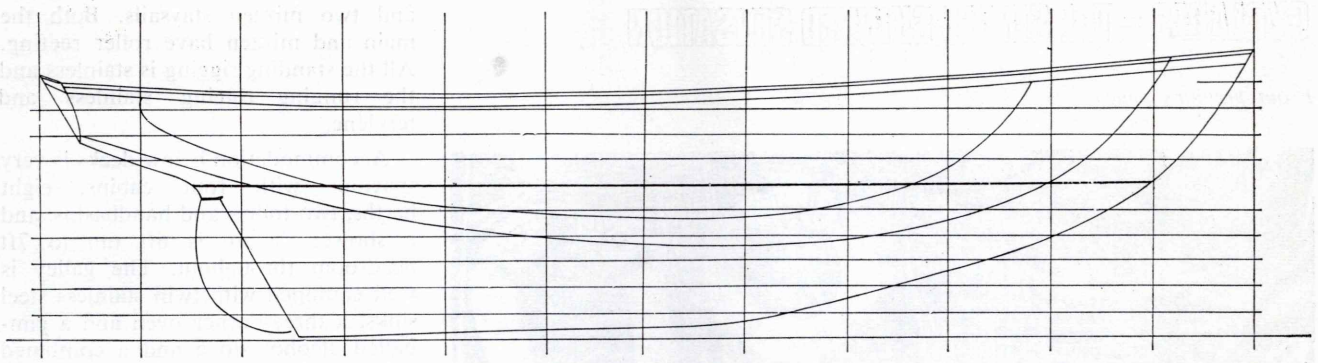
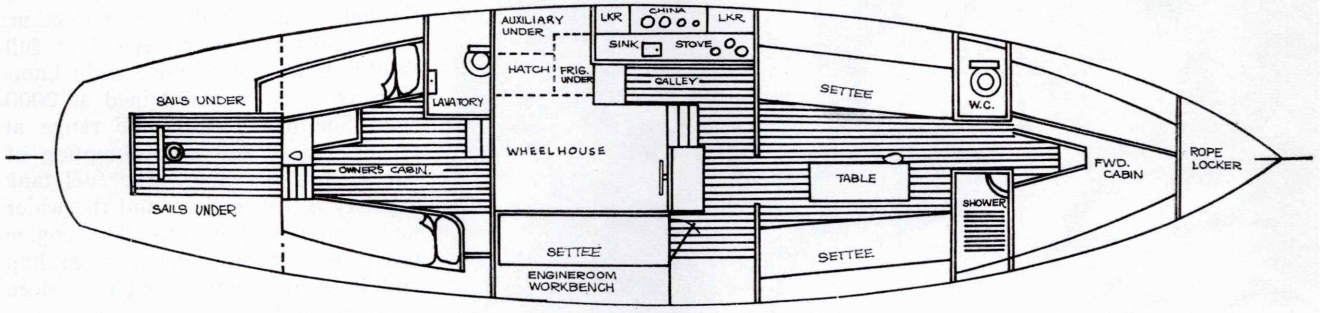


CYCLADES — THE



SINGLE-SKINNED SENSATION



CYCLADES, a 48 ft auxiliary ketch (although she has usually been called a motor-sailer) created a sensation when she performed exceptionally well in the last Whangarei-Noumea race. She was the sixth boat to finish and her corrected placings were seventh in the A division and 14th overall. Her best performance during the race was a 24-hour run of 204 miles.

She was designed by Mr John Brooke, Assoc. R.I.N.A. for Mr L. J. Fisher and built by Mr J. Emptage and launched in 1962. Her present owner is Mr Keith Hardley.

Cyclades was built on the single skin principle with 1⅜in kauri planking on 1½in x 1⅜in white oak ribs at 8in centres. The decks and trim are teak, the decks being laid over waterproof plywood. Six heavy 3 x 2in longitudinal stringers contribute to the hull strength. The cabin top is canvas covered and the cabin joinery is teak and kauri.

She is 48ft overall, with 13ft beam, 6ft draught, and 16 tons displacement with five tons of lead on the keel. *Cyclades* carries 1000 sq ft of working sail on spruce spars plus spinnakers

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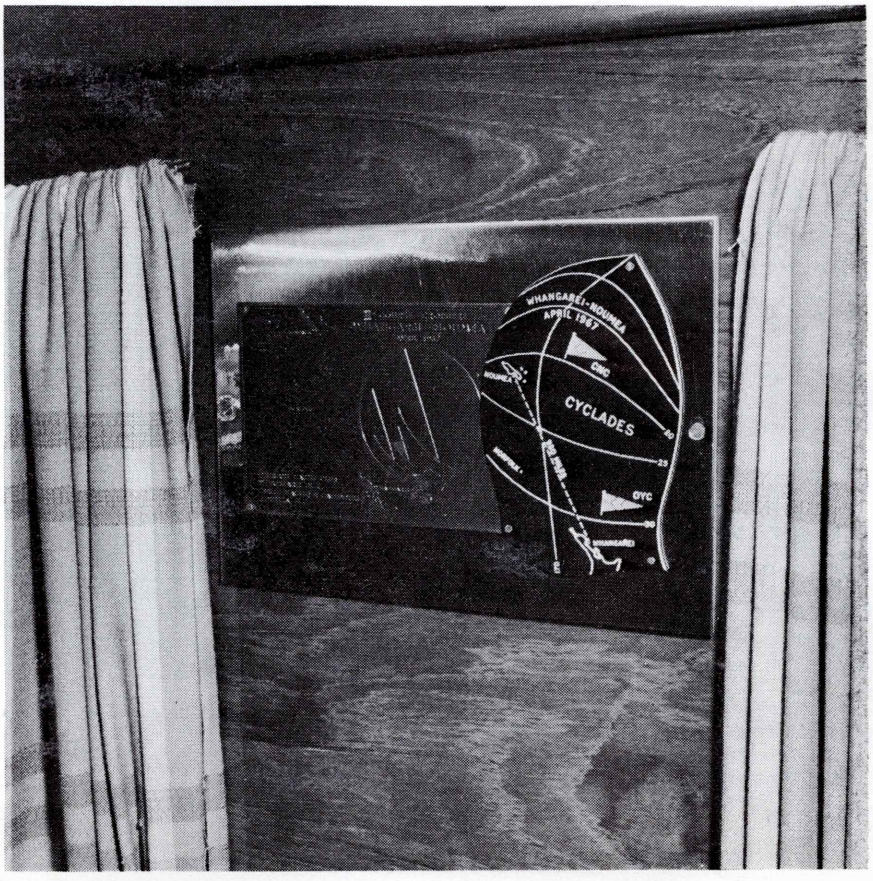

CYCLADES — THE SINGLE-SKINNED SENSATION

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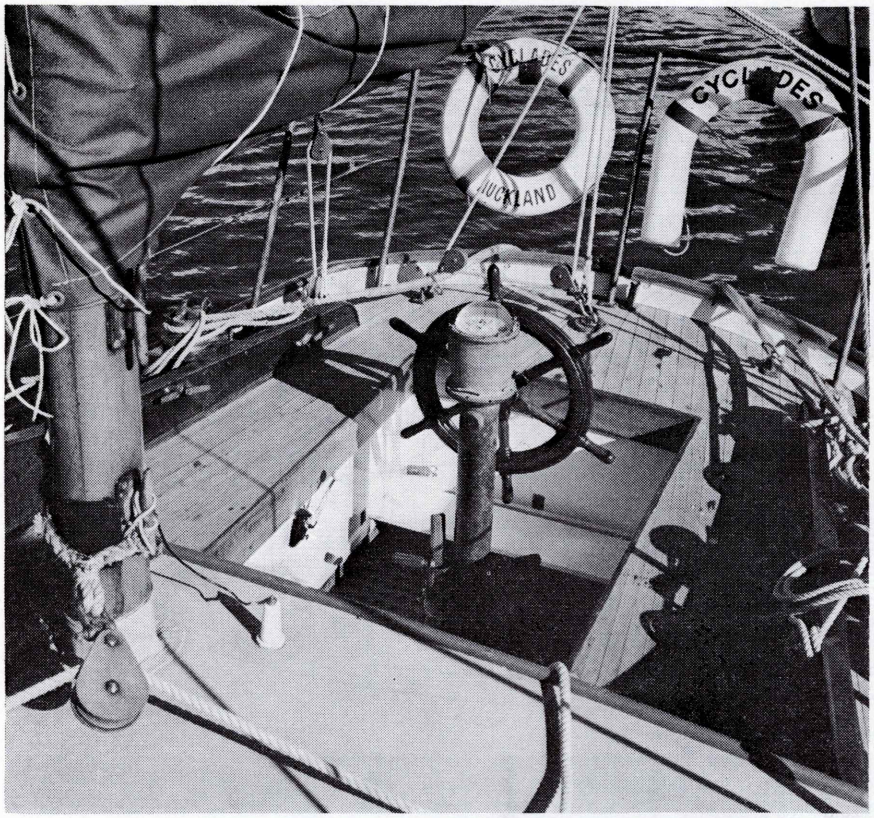
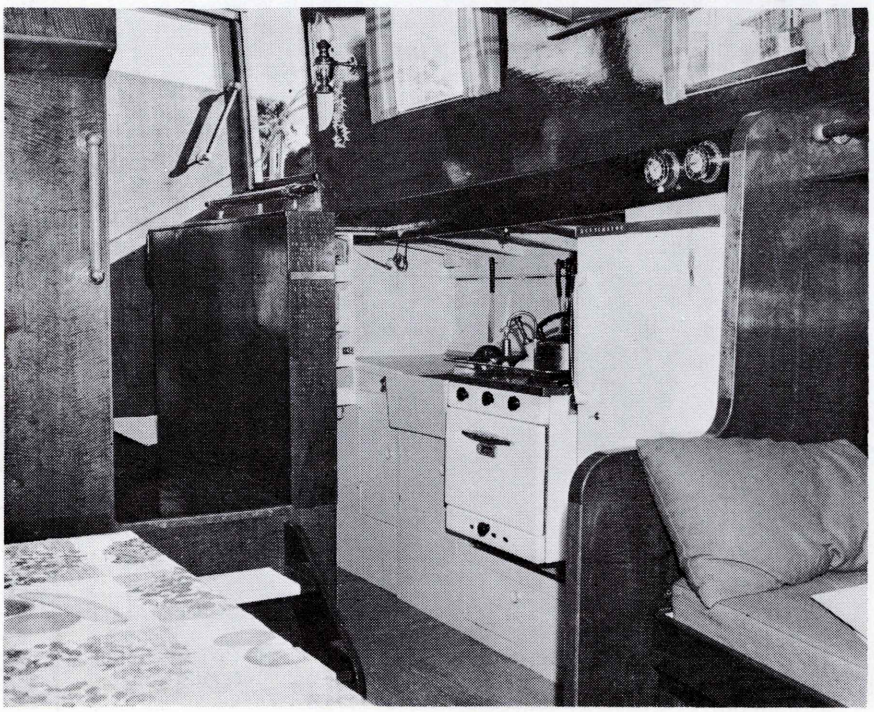


Cyclades has dual steering, from deckhouse and aft cockpit (above). Below: A well-equipped galley has twin sinks, three-burner oven, gimballed alcohol stove and refrigerator/deep-freeze



and two mizzen staysails. Both the main and mizzen have roller reefing. All the standing rigging is stainless and the running rigging stainless and terylene.

Accommodation below decks is very spacious with four cabins, eight berths, two toilets and handbasins, and a shower. There is 6ft 6in to 7ft headroom throughout. The galley is well equipped with twin stainless steel sinks, a three-burner oven and a gimballed alcohol stove and a combined refrigerator and deep freeze.

Comfortable eight knots

Cyclades is powered with a six-cylinder Fordson diesel which develops 100 bhp at 2500 rpm and turns a right hand 22 x 18 Henley propeller through a 2:1 hydraulic reduction. Nine knots is the top speed at full throttle but a comfortable eight knots cruising speed is maintained at 2000 rpm. She has a 500 mile range at cruising speed and a consumption of two gallons per hour. The fuel tank capacity is 130 gallons and the water tanks carry 120 gallons. The engine room also incorporates a workshop and is even roomy enough to sleep an extra hand.

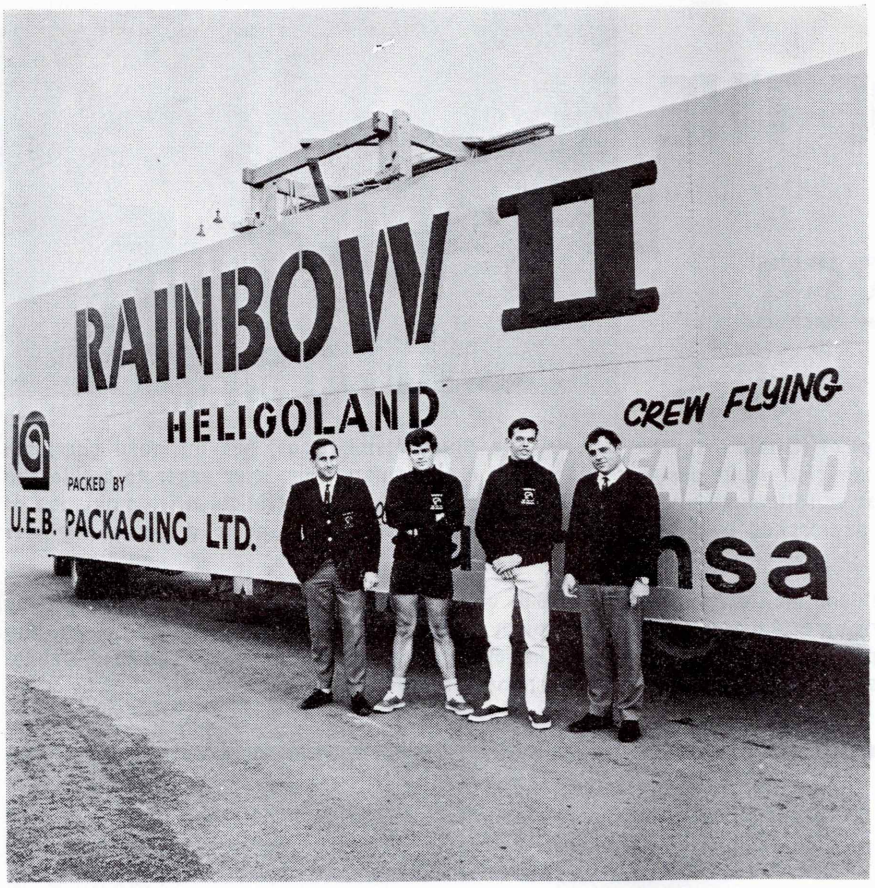
Cyclades is extremely well equipped with navigational aids which include a Bendix automatic pilot, a binnacle, aircraft and hand-bearing compass, an Electra speedometer, a depth finder, an Electra log and an A.W.A. 65 radio. She has dual steering from the deckhouse and the aft cockpit. The cockpit is normally used when sailing and the deckhouse wheel when cruising under engine.

A 24-volt anchor winch is fitted with an electro magnetic brake which can be worked from the wheel-house.

Life saving equipment includes two life-buoys, eight jackets and a dan buoy plus whistles and lights in accordance with the R.O.R.C. rules.

Other equipment includes a 45lb CQR and a 60lb Fisherman's anchor, a 12-volt generator and a 24-volt alternator and three CO2 fire extinguishers.

To sum up, her designer, Mr Jack Brooke says "the hull design of *Cyclades* is nothing revolutionary. She is designed to no measurement rule but is intended to be a comfortable, well behaved, seaworthy ocean cruiser with a good turn of speed in fresh conditions". She has turned out to be just that.



Neatly packed in a cardboard box, Rainbow II heads for her second tilt at the One Ton Cup. Crew members are (left to right) Alan Warwick, Dave Craig, Ward Schofield and Chris Bouzaid

HOW BRIGHT WILL THE 'NEW' RAINBOW SHINE?

THE decision has been made, *Rainbow II* is en route for Germany and New Zealand's second challenge for the One Ton Cup is under way.

But a lot of yachting people are still arguing whether the Royal New Zealand Yacht Squadron is right in sending Chris Bouzaid and his boys to Heligoland for another crack at world champion *Optimist*.

Rainbow was an old design when she did so well — she was runner-up — last year. She's a year older now, in addition to which the opposition knows what to expect. They will be prepared to match the tremendous crew work that stood *Rainbow* in such good stead in her first challenge.

These are some of the arguments being put forward against another *Rainbow* challenge — and they are valid points. But the Squadron are nobody's fools. They weighed all this up — and more — before deciding to go ahead with the costly business of another challenge.

They reasoned that if we were to try again, now was the time. Now, before the new rating rule is adopted and the world of ocean racing is thrown open to the changes in design that the new rule will bring.

They reasoned that *Rainbow's* chances would be at least as good as last time because if the opposition would know what to expect, Bouzaid and company also know what to expect. They know the conditions, the waters where the series will be sailed and the boats to look out for. This time their being in Heligoland won't be a shot in the dark.

The Squadron's centenary is due in 1971 and the gamble would be well worth the while for the chance of *Rainbow* bringing back the One Ton Cup and have the series sailed in New Zealand waters in 1970.

But the biggest factor in the Squadron's argument to mount the challenge is based on a gamble by Bouzaid to improve *Rainbow*'s light-weather performance. *Rainbow* was not beaten by much last time. She was inferior to *Optimist* in the light conditions — five to 15 knots — that prevailed, but whenever it blew above that, *Rainbow* was the boat to watch.

So Bouzaid sat down and worked out how to crack more sail on down wind while keeping the boat within the strict 22 ft rating. He'd learnt a few rating tricks in Heligoland. The light petrol engine and more than 800 lb of lead in the bilges were removed and replaced with a heavy diesel of equivalent weight.

The "dead" lead was of no help at all in rating, but the diesel provided a rating credit.

The yacht's scantlings were also increased to provide another credit and these changes allowed an extra 3 ft 3 in on the mast and, of course, more vital sail area.

Rainbow's measured fore-triangle has been increased from 15 ft to 16 ft 9 in, her big genoa from 440 sq ft to 540 sq ft, and her biggest kite by 230 sq ft to 1180 sq ft. The bigger fore-triangle allows a longer spinnaker boom which enables the big "jenny" to be carried inside the spinnakers.

Two close tilts at *Rainbow* by Ian Lichtenstein's *Panther* in the Southern Hemisphere One Ton series at Easter led to speculation as to whether *Rainbow*'s heavy weather performance had suffered during the rerigging. But nobody was quite sure just how much the other boats in the fleet had improved. Certainly *Panther* got better as the series progressed and she revelled in the heavy stuff.

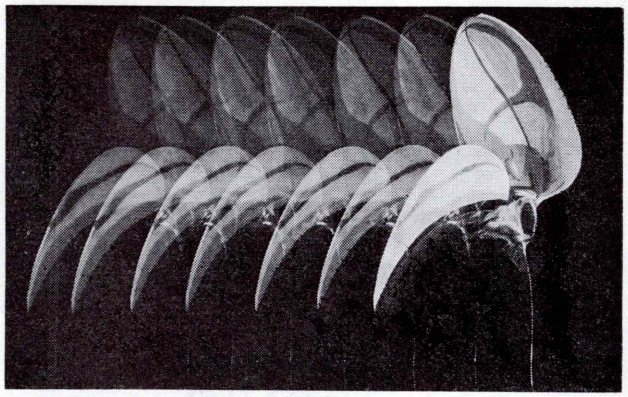
Nevertheless, *Rainbow* took three guns in a row in a one-class fleet and, more important, when she did get the light weather she was after to test the new rig, she left her rivals for dead.

Bouzaid gets the last word:

"I said at the outset that I would not take *Rainbow* back to Heligoland this year unless she was a much improved boat in Heligoland conditions and at least as good in the heavy."

Obviously she is. The question is: how much improved are the rest?

THE CASE OF THE CAVITATING CABIN CRUISER



The cavitation problem of D. G. Godfrey of Kaitaia (Ask The Experts, Sea Spray March issue) has intrigued our tame boffin, J. S. Taylor, flowdynamist, aerodynamicist, yacht designer and expert extraordinary, who, ever eager to tackle the more complex technical problems of power or sail, came up with what he terms a "rather tongue-in-cheek" examination of the questions involved as they might be approached by (a) a research scientist, (b) a designer and (c) a marine engineer . . . Peter, Bill and Tom.

For those who may not recall the problem, Mr Godfrey has a 17 ft 6 in cabin cruiser, ply and fibreglass, powered by a 100 hp Mercury conversion by Scripps, driving a 13 x 12 LH propeller through a Paragon box of approximately 1½ or 2:1. The boat has been paced at 30 knots but the propeller cavitates at a speed just on plane, depending on speed and load. Cavitation is, however, erratic, being present one day and absent the next. All remedies have so far failed.

THE problem is not only perplexing but kinky enough to deserve the attention of three experts associated with the question and having a variation in their approach to same. Comparing notes at the end will give an excellent opportunity to cross-check on what they think.

Peter is a research scientist and has what the boating man would call an utterly impractical approach to anything that floats. He has a complete disregard of whether a device works or fails. He plainly observes the fact and has an uncontrollable urge to find the right and conclusively proven explanation for it. Considering our case he appeared to be one of the men to ask.

In the strong light of his laboratory the excessively short crew-cut made him look bald and he refused to be disturbed by our visit.

"I am on the right track, man," he said, deftly adjusting the vernier of a precision instrument right under a microscope. The device was brushing minute quantities of grey paste on the feet of a mosquito.

"The paste causes a partial breakdown of the surface tension of the water and all you have to do is to measure the variation in the immersion to get the coefficient," he added.

We nodded knowingly and stopped the presentation of our problem only at the first sign of apoplexy. His astronaut haircut and neatly-trimmed beard were apparently trying to trade places.

"Don't be vulgar, man. You are trying to put me into the job of solving a practical problem. It is positively humiliating; why don't you feed it to a computer? Printing out what I have learned is no fun. Still, if you are baffled . . . "

"Yes, Peter, we are."

"All right then, I will give you it straight; you have the most scientifically beautiful border-line case; the propeller either works or it does not."

"Peter, you are really helpful."

"But I am. Your trouble is that of a man trying to cook a pot of beans on top of Mount Everest. No go, man, the beans will never be tender enough to eat and . . . "

"How about returning to our subject?"

"But I keep talking about it. The temperature of the boiling water depends on the atmospheric pressure, and I can demonstrate to you right here that water can boil vigorously even at room temperature in a sufficiently rare atmosphere, that is in partial vacuum. In this case the beans will just float around and . . . "

"Please, Peter, stick to the subject."

"After carefully considering your racial past, I feel for a semi-evolved ape you are doing all right. Still, your unco-ordinated mind stops you seeing the light; I *was* talking about your flaming subject."

His disgust hidden in his beard, he resumed brushing the feet of the mosquito, delicately placed it on the water surface and started to measure the immersion electronically.

We cut in once more. "Well, what *is* the trouble with the propulsion system?"

"Simple, man. The prop works in boiling water, and I mean it quite literally. At least the back of the blade does. After making some allowance for your plebeian background, I might call it cavitation."

"It still does not explain the inconsistency — and why cavitation anyway?

"Chaps unable to imagine anything sensible outside of empiricism have worked out an easy-to-apply figure to dubious cases like yours. You had better try it for size. The magic expression is 6 lb/sq in. If the loading on the blade area is in excess of this figure then you might safely expect cavitation. You have given me too little to go on, but the loading on Mr Godfrey's propeller is far too high.

My estimation is 9 lb/sq in, well inside the range of fully-developed cavitation."

"Are you still serious about the boiling water?"

"Of course. In order to generate the excessively high hydrodynamic pressure on the blade it has to show a high pressure area on its face and a low pressure area on its back, rated at 3 lb/sq in and MINUS 6 lb/sq in respectively."

"I still do not follow you . . . "

"Expected. You don't, because you refuse to think in terms of boiling beans on top of Everest."

"Joking?"

"Not by any means. At water temperatures normally expected in natural conditions the vapour pressure is higher than the pressure in the low-pressure area. The water in this area turns into vapour, it forms bubbles filled with low-temperature steam. It is boiling to you. The world of your knowledge will be suddenly expanding in the minute you accept the fact that 'boiling water' does not mean 'hot water'. Not in low-pressure conditions that is."

"All right. Then why is it inconsistent and why does the boat appear to be right from time to time?

Weight influence

"The weight of the boat is a major influence on the propeller loading required. Unloaded, possibly she can just make it with a figure of around 6 lb/sq in or slightly higher and just on the verge of cavitation. If loaded the requirement for pressure goes up and fully developed cavitation follows."

"What do you think about the 30 kn figure?"

"Judgment based on the given data, the best possible power installation and light weight would indicate a top speed somewhat under 30 kn but very close to it. The key-words are the 'best possible power installation'. Apparently she comes short in this respect."

"What do you think she is doing?"

"The story of her is symptomatic; cavitation stops her at her hump-speed between 10 and 12 knots."

"Any suggestions on how your 'close to 30 kn' could be achieved?"

"Plenty."

He started to rattle off long strings of formulae with a demonic smile and eyebrows that levitated like a ventriloquial doll's. He was still tossing off peals of sinister laughter when we left. Through the already closed door filtered his voice: "Ask a designer; his routine work is to sort such messes out."

We decided to do just that.

Lightning speed

Bill was found in his bathroom folding newspapers into the shape of his latest 12-metre design. He made mental figurings at lightning speed to beat the soaking process turning his models into a limp waterlogged mass. Bill is a progressive designer of the new breed and fanatic about tank testing.

"Hmmm . . . "

That was all he said after hearing about Mr Godfrey's boat. Then, without further comment, his middle-age spread defying gravity, he started to climb the ladder of the library looking for appropriate references.

In no time we had the king-sized drafting table, the floor and the walls covered with graphs and numerical charts. After having consumed three and a-half gallons of strong, black coffee between us we came to the following conclusions as indicated by basic designing data:

(a) The maximum speed of the boat with the present propelling system could not be more than 14 knots even if otherwise properly designed.

(b) The available HP and the rest of the propelling system is not co-ordinated; the propeller is unable to absorb more horse-power than 60 HP while 100 HP is available and at full throttle is ACTUALLY absorbed. How? "Ask one of the bearded brigade," Bill said. Then we remembered we *did;* the 40 HP simply boils away in low-temperature steam.

(c) The cavitation chart — "Not very reliable," said Bill — indicated heavy cavitation. To check, he did a few sums. "Sure it cavitates," he said.

(d) Figures for displacement and blade area ratio were not available and were assumed 1.5 tons and 0.5 respectively. Based on the assumed figures a cross-check was made which verified the cavitating condition at hump-speed and put the maximum speed value to 13 knots.

"We try first the obvious," said Bill. "A bigger propeller."

It cured both the cavitation tendency by lowering the blade loading and the lack of absorbing power by being bigger. This approach produced rather less than 20 kn which was judged poor in view of the size, weight and available horse-power.

His final recommendation came with a fresh approach to the problem. Without any consideration to the troubles experienced with the present set-up, he worked out what he could do with the available hull and engine. His estimation, which he considered conservative, was 26 knots. No cavitation troubles, save in the very low speed range where more or less any fast boat has it. The propeller recommended was, surprisingly, of close to the same dimensions as the present one.

"Well, Bill, this boat you are figuring looks practically the same as the one which has given the trouble. What is the difference?"

"Pretty basic. You have to throw out the reduction gear, it just does not fit. The 100 HP available can take the wheel I recommend even at 3600 rev and we would save the losses caused by the existing reduction gear. A check for cavitation, which is the main trouble now, is negative in the full range of speeds the boat would be capable of. Still, to get better acceleration from a standing start a propeller of generous blade area is recommended. The hull probably has a predominant hump in the resistance curve and a narrow-bladed propeller still can hit cavitating conditions around 10 to 14 knots. Unless the boat is much heavier than we figured, the correct size of the wheel appears to be 9 or 10 x 12 and NO reduction."

Blank face

Tom bumped into us on the way home. He is a clever marine engineer and we tried the trick on him too.

"Tom, we have a pleasure boat with a 100 HP engine having top revs of 3600. What do you recommend for a propeller?"

With a blank face he pulled the mini-edition of his propeller chart out of a pocket and, after a short glance, said matter-of-factly: "9 x 12 direct drive for 26 kn."

The experts all have a different approach. Still, if they are experts they must all agree.

For what it describes as "safety reasons" the Cruising Yacht Club of Australia has adopted a new rule which reads: "For races of more than 200 miles the entries of hard chine plywood yachts will not be accepted unless such yachts are inspected and approved by a panel appointed by the Cruising Yacht Club of Australia. Yachts with topsides and bottoms constructed of plywood of a thickness less than length waterline in feet squared divided by 1200 for the required thickness in inches will not be considered. Frames, bulkheads and fastenings must be of comparable strength." In the articles which follow, leading New Zealand designer John Spencer and technical writer J. S. Taylor examine the implications of the CYC decision, which vitally affects future New Zealand challenges for such events as the Sydney-Hobart race and the Southern Cross series. Both agree that . . .

Australia's new 'plywood

BY JOHN SPENCER

THERE is undoubtedly, at the present time, a certain amount of controversy — if opposition to their entry in offshore events by a few "die-hards" can be called this — over the suitability of hard chine plywood yachts for offshore racing. Such boats have, however, been competing in offshore events overseas for many years while, in fact, most modern ocean racers are built to a large extent from plywood in one form or another. Hard chine boats built from sheet plywood, most famous of which would be Mr C. Brunzeel's *Zeevalk,* have raced in RORC events, including the Fastnet, for at least 20 years.

It seems incredible, in view of this, that the CYC of Australia (a NSW body in no way representative of all Australian or even NSW offshore yachtsmen) should consider it necessary to prevent the entry of a majority of such boats in the Sydney-Hobart race and Southern Cross series, by the introduction of a so-called "Safety Rule" claimed to be aimed at keeping the skin thickness of plywood ocean racing yachts within "safe limits".

What limits are considered safe?

For 60 ft LWL 3 in thickness of plywood.

For 50 ft LWL 2½ in thickness of plywood.

For 40 ft LWL 1 1/3rd in thickness of plywood.

For 30 ft LWL ¾ in thickness of plywood.

Something like 80% of modern yacht construction would be in plywood of some form or another — cold moulded and/or sheet plywood — and few yachts so built, if any, over 40 ft would conform to the above, while below 40 ft only heavier and in the main RORC boats, whose excessive and often useless scantling weights are designed to reduce rating rather than increase strength, would do so. The rule applies, however, to hard chine plywood yachts only.

What is the rule?

Briefly, it gives the CYC committee the right to refuse the entry of any hard chine yacht and in addition requires that if built from plywood (presumably sheet plywood manufactured commercially) the skin thickness in inches may not be less than:

$$\frac{(\text{LWL in Ft})^2}{1200}$$

How does it work?

Skin thickness is required to vary as the square of the LWL, thus demanding a disproportionate increase in thickness as the LWL is increased. Therefore while the skin thickness of the Stiletto class is within the limit required by the rule, for her LWL of 20 ft 6 in (too short for acceptance as an entry in CYC races), *Infidel,* which is no less strong proportionately, would be required to have her skin thickness increased from ¾ in to 2½ in!

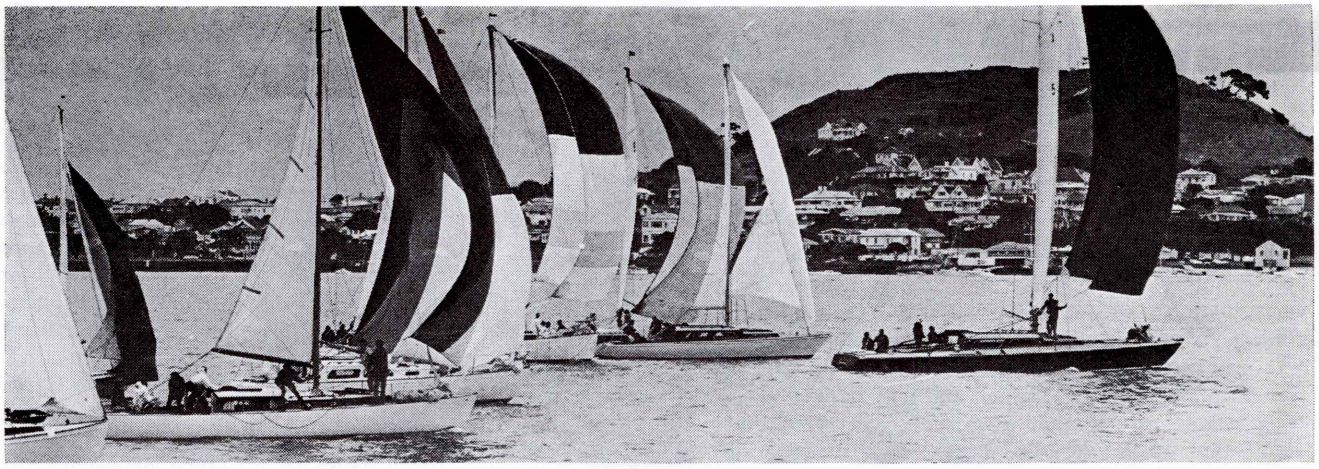
The rule can only be regarded seriously as being intended to prevent rather than restrict the entry of hard chine plywood yachts.

What is the record of hard chine plywood yachts in ocean racing?

Performance-wise the French have undoubtedly done the best. The RORC rule does not favour light displacement boats and in addition its method of measuring beam and determining length does not favour a normal hard chine hull shape. The French have developed the double chine hull form to overcome this disadvantage and French designs currently hold both Quarter and Half Ton Cups, the holder in each case being a plywood chine design by Andre Mauric. Best known designer, of course, is E. G. van de Stadt, a prolific designer and builder in steel, wood, aluminium alloy and glassfibre as well as plywood.

However, the rule is claimed to be a "Safety Rule", so what is the safety record of hard chine plywood ocean racers and is it such that the CYC should have cause for concern?

I have never heard of any plywood ocean racing yacht foundering, or suffering serious damage structurally or even losing a mast in an ocean race or having given cause for concern in any way as to the safety of such a



Hard chine boats built from sheet plywood have raced in RORC events for at least 20 years, most famous of them being Zeevalk (far left). The new CYCA rule would keep Zeevalk out of offshore racing, as it would Infidel, Tom Clarke's Auckland flyer pictured above as she moves into an early lead at the start of the Royal Akarana Club's first race of the winter season.

rule' just won't work

boat at sea. There has been a certain amount of talk on both sides of the Tasman about *Matuku* and the whale, and I gather it has even been suggested that there never was a whale, but the CYC have stated that this incident is not related to their decision and that their concern for the safety of plywood ocean racing yachts predates this occurrence.

In addition the owner of *Matuku,* Kem Cox, is sold on plywood ocean racing boats to the extent that he stopped off in Auckland before returning home, after spending five days in a life raft in the Tasman, to order a new boat of the same type. His enthusiasm appears to be shared by his crew.

In the last Sydney-Hobart race three plywood chine boats competed and finished without difficulty, although a larger number of other "conventional" entries ended up disabled along the NSW coast. If the CYC is so concerned about the safety of participants they would be well advised to inspect properly all entries before their races as is done in New Zealand, rather than discriminate against a particular type of design which appears to have a very good record for safety. The CYC's pride in their record of 24 Sydney-Hobart races without loss of life or boat is commendable, but is not justified by the large numbers of competitors in this and others of their races which have been forced to retire as a result of serious damage. Good luck, rather than good management by the CYC, plus the ability of most yachtsmen to get themselves out of trouble, must surely have been the chief factor in producing this record.

What is hull strength ?

The hull of any yacht is made up from a number of components of which the hull is but one, and each may contribute to the total strength if properly related to the others. Most single-skin planked hulls rely entirely, or almost entirely, for strength on their planking and ribs and, of course, floors, and though bulkheads may contribute stiffness they may even reduce the ability of the hull to withstand severe punishment if not sufficient in number and regularly distributed over both length and for the width of the hull.

Splining and/or edge gluing of the planks will undoubtedly stiffen the structure but may not necessarily increase the strength of the hull unless it is well tied together and strengthened internally. Modern cold-moulded or sheet plywood construction may, like aircraft construction, derive its strength largely from the structural arrangement of bulkheads, frames, floors and stringers, and if this internal structure is properly designed to carry and distribute the loads of keel, spars and rigging (under way) as well as to support the skin, immense strength can be achieved with a very light skin.

Carried to extreme, however, the skin will be easily punctured and while an aeroplane may continue to fly quite happily with its skin punctured, a yacht cannot continue to sail for long, so it is desirable that the skin have sufficient thickness, and therefore stiffness and strength, to withstand impact. On the other hand, if the skin is strengthened at the expense of internal framing and particularly if the stringers are reduced in size to a point where they will no longer provide sufficient support between bulkheads and/or frames, serious fractures may occur as a result of purely sailing strain in bad weather and this has, in fact, occurred in cold-moulded racing yachts offshore, and could easily occur in many badly-designed plywood boats where stringers are too light.

While single-skin construction (not strip planked) may work badly under severe load it does provide maximum fore and aft strength within the skin which in cold moulded and plywood hulls must be obtained from stringers. Many modern RORC boats are designed and constructed to achieve maximum scantling allowance rather than structural strength and in some cases strength is lacking in spite of excessive skin thickness due to the rule's assumption that the balance of the structure will be proportionate

Continued over

Australia's new rule

From previous page

to the members which are included in the scantling allowance, and the determination of many designers and builders to exploit this.

Skin thickness is no indication of strength of the hull as a whole, and if strength is to be examined as a safety factor the whole of the structure together with workmanship and materials must be considered and related not to length but to displacement and ballast ratio.

Most light displacement boats have fairly low ballast ratios and I would agree that those which don't are suspect, at least for ocean racing. My own designs would all have ballast ratios, in ocean racing trim, of approximately 33 1/3%. *Infidel,* fitted out for ocean racing, would have a displacement of about 12¼ tons. In order to increase her ballast ratio to 50% she would require an additional 4¼ tons of lead. Since she only has 4 tons now, her spars and rigging, although up to offshore standards as she is, would obviously need replacing if ballast were more than doubled and additional weight involved would mean a further, similar addition to the lead to maintain a 50% ratio. She would therefore end up approximately 17 tons displacement, which is about the same as *Ta'Aroa.* It is unlikely that *Ta'Aroa,* designed by Sparkman and Stephens, has less than a 50% ballast ratio and therefore immediately it is apparent that *Infidel's* hull has much the same structural weight as that of *Ta'Aroa.*

Do the CYC and other critics really believe that *Infidel* and other hard chine plywood boats such as *Sirius, Sirrocco* etc. are weakened by having so much less lead on their keels?

Nobody would suggest that *Ta'Aroa* is not a magnificent boat eminently suitable for offshore racing.

Why hulls and not decks?

Why, indeed, is it not considered necessary to keep the thickness of plywood decks within safe limits? Nearly all "conventional" cold moulded and even single-skin yachts have been using them for years, of course, and it is interesting to note that light displacment hard chine plywood boats do not tend to have decks lighter than heavier conventional yachts. Certainly there are RORC boats with 1¼ in decks built for scantling allowance and, of course, we know of one which has, in addition, a layer of galvanised iron over this.

This is what the committee which has written the proposed new World Offshore Rule has referred to as "excessive and useless structural weight". Even the most enthusiastic "rule beater", however, would not envisage using 2½ in decks on *Infidel* or *Ta'Aroa.* The CYC committee has apparently decided that decks don't count.

Even *Stormvogel* would be ineligible here, though of course she would also be ruled out on skin thickness of her cold moulded hull were the "rule" not applicable only to hard chine boats. Let's face it — the CYC don't want hard chine plywood boats in their races and whatever other effects the rule may have it can only inhibit those designers and builders who specialise in this type of yacht.

One cannot but wonder, however, when it comes to plywood whether current popularity of Australian-made plywood here in New Zealand is justifiable. The CYC of Australia apparently don't think much of it.

A PENALTY ON SIZE AND A STRAIGHTJACKET ON PLYWOOD BUILDERS

BY J. S. TAYLOR

WHATEVER the purpose of the rule-makers, the mathematical formula they decided on is discriminatory and either the creator of the formula was not familiar with its way of working or the rule was purposely brought in to handicap plywood racers. The scantlings introduced by the CYC rule bear no relationship to well-established boat-building practice and for larger boats are quite unworkable.

Relating planking thickness to the squared length of the waterline must look irrational to any practical boatbuilder. The rule says that if the length is increased by, say 3, then the required increase in planking thickness is 3x3 = 9. Without going into even the simplest mathematical consideration the fact that the thickness of planking increases faster than the length of the boat will be appreciated. If we keep building boats of increasing sizes to the rule then we will inevitably end up with a craft where the rule demands planking thickness equal to half beam. . . in other words a boat built of solid wood (Fig I).

Although the size of the craft would be beyond any practical limit, it is interesting to note that the CYC rule puts a limit on the size of the craft that could be built. After a certain size is reached the CYC formula produces minimum planking thicknesses and "Frames of comparable strength" in excess of half beam of the craft. In this case the yacht would not meet CYC requirements, not even if built up solid. We have to note that no such restriction exists if any other building method or material is used.

The fact that the required length to produce such extreme cases is outside any practical limit of yachts is irrelevant to our analysis; our point of interest is the trend the formula shows on account of its implications. This trend is not so obvious unless we scrutinise the extreme limits but, being the product of the same for-

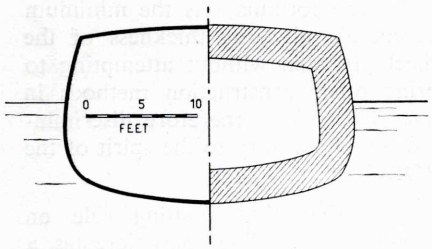


Fig. 1

mula, it is there at any size and as it was shown it penalises larger boats.

The tendency to design close to the rule has become a habit of the modern racing yacht designer. Only one factor, waterline length, governs the required planking thickness, making the rule open to abuse. The fact that on, say, 30 ft LWL we can have a shortended boat of not more than 31 ft LOA just as we can have a 45-footer sporting nice long overhangs is overlooked or considered unimportant. Built on the same scantlings the dry weight of the hull of the 45-footer nearly trebles, she has an increased sailing waterline, is a much larger craft in every respect and can get away with the same planking thickness.

The designer of the plywood ocean racer finds that he has to design to two contradictory rules, the RORC and the CYC and a design tailored to fit one will not fit the other.

One of the most serious objections to the new rule is that apart from being irrational (as has been shown) it means that the plywood yacht can not be built according to common and accepted practice while the rest of the fleet can.

But what is common and accepted practice?

Apart from the new formula introduced by the CYC there is no known formula for planking thickness anywhere in the world. The fact that thickness of planking represents only part of the structural strength shows that there could not be any. Seagoing yachts and seagoing boats in general show a wide variation in actual thickness of planking even where waterline lengths are equal.

The method of determining planking thickness is empirical, and even the most known scantling rules, like Lloyds, are based on past experience with boats actually built. The evolution of the conventional yacht has taken a long time and this time factor makes the usually applied rule of thumb quite reliable. The fact that the CYC did not make a sweeping change affecting ALL building methods would indicate that they too appreciate this point.

Fig 2 shows the recommended planking thicknesses for ocean-going cruisers in the form of a simple graph which reads the thickness in inches at various waterline lengths up to 100 ft. It has to be emphasised that the graph presents no synthetic curve arrived at by some formula; it simply records existing practice.

The graph itself is based on data from a very conservative American source (Skene) and assumes standard boat building practice for the rest of the scantlings. The run of the curve indicates planking thicknesses on rather the heavy side as shown by a few typical boats marked.

Boats built to somewhat lighter thicknesses than indicated by the curve

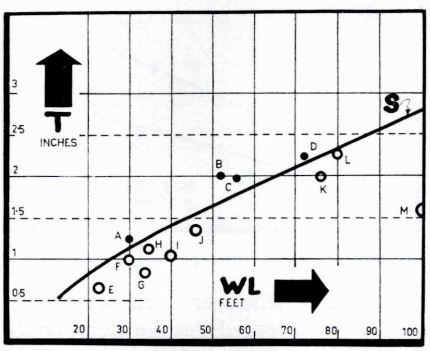


Fig. 2

include: (e) 6-metre (Lloyds, (f) 8-metre (Lloyds), (j) 12-metre (Lloyds), R.N.L.I. lifeboat, (g) *Myth of Malham* and (h) *Starfire* ocean racers, (i) traditional Chinese junk, (k) *Gokstad* Viking ship, (l) *Shamrock-V* J-class racer (Lloyds), and the English merchant schooner (m) *Rhoda-Mary*.

Boats built to thicker planking than indicated by the curve are exceptional but a few are given to clear up the matter even further. Slightly above the curve we would find (a) Capt. Slocum's *Spray* (less than ten per cent excess in thickness), (b) the heavily-constructed fishing boat, the English sailing Drifter which rates 20 per cent excess in planking thickness, (c) *Nonsuch,* a 50ft ketch built in the 17th century and which shows 12 per cent excess in planking thickness, and (d) *Albatross,* a comparatively modern Brigantine of 72 ft which is very close to the curve with an excess of six per cent.

By studying the curve and relative positions of the boats marked it will be obvious that the curve marks the top limit of accepted building practice for cruising craft. The bottom limit, including most ocean racers, is similarly determined in Fig 3.

In the shaded area between the curves we find the planking thickness of boats assuredly well built for offshore work. Close to the top curve are working boats and heavily built offshore cruisers; in the middle area, offshore racers built to Lloyds, and in the vicinity of the bottom curve the medium-light displacement offshore racers without any extreme or dangerous features. *Myth of Malham* is close to the bottom curve and so is the merchant schooner *Rhoda-Mary*. The conservatism of the bottom curve is further shown by the 44 ft American plywood cruiser-racer *Hunt-510,* which is well outside the shaded area.

Applying the data of the bottom curve to actual construction demands the same qualifications as set out for the top one before, ie for the rest of the scantlings (frames longitudinals etc) standard boatbuilding practice is assumed. The curves are based on data gained by actually built planked boats of conventional framing. The bottom curve does not say that frameless plywood shell based on its data would produce a sound seagoing boat although there is an indication that it could (*Hunt-510*). This question is outside our present frame of reference.

If we arbitrarily decide to use the bottom curve as a minimum planking thickness indication for ply boats, both facts of keeping to practice-proven thicknesses and waiving the usually accepted advantages of ply

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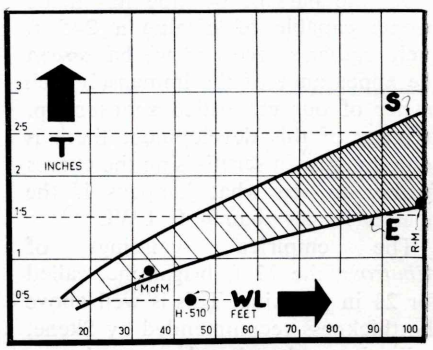

Fig. 3

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construction would be obvious. Still in Fig 4 we have done it in order to have an unassailable comparison between accepted building practice and the new CYC formula.

How the CYC rule fits?

Fig 4 shows the CYC formula as a thin parabolic curve and the empirical bottom curve of Fig 3 is repeated as a thick line for comparison. The top curve of Fig 3 is indicated by the thick broken curve to give complete insight into the way the CYC rule works.

At very short waterline lengths (under 26ft) the CYC rule indicates unreasonably thin plankings. Just above the present minimum waterline limit for boats in question the parabolic curve and the empirical one intersect, indicating equal planking thickness for both. In the area of 30-35ft LWL the rule indicates planking thicknesses suitable to Lloyds if conventially planked. Going further the requirement of the CYC rule rapidly increases and at 40ft LWL the required planking thickness would suit heavy working boats. Over 40ft LWL the curve simply runs out of any known boatbuilding practice. It could be proved that sheetply has definite strength advantages if compared to conventional carvel, but doing so just does not appear to be necessary on account of the terrific discrepancy between the CYC rule and actual practice.

The size of the ocean racing yacht keeps increasing and a singlehander around 60 ft length is not a rarity. Since the largest racing yacht known, *Valhalla,* competed for the Kaiser's Cup in the Transatlantic Race in 1905, the passage of time has made people capable of owning a 245 ft yacht rather scarce and we have seen the appearance of the immensely rich owner of our era called sponsorship. In view of this development there is some interest in scrutinising the curves further to see what happens if the boat is longer than 40ft LWL.

The empirical scantlings of *Albatross,* the 72 ft brigantine, called for 2¼ in planking. This is well above the thickness recommended by Skene, indicating a heavier than usual construction to keep with the character of the boat (she was no yacht). A plywood yacht of the same WL built to the CYC rule would have a minimum planking thickness of rather more than four inches.

The J-Class *Shamrock-V* was anything but a scantily-built racing machine. She was built to Lloyds for Atlantic crossing and her planking thickness of 2.3 in made her equal to most working boats in this respect. If built of ply, not less than 3.3 in planking would satisfy the CYC (80 ft LWL).

The heavy work-horse, the 100 ft merchant schooner *Rhoda-Mary,* would be accepted despite her planking thickness of slightly more than 1½ in. If built of ply the rule requires eight inches plus as a minimum. At her size the irrationality of the formula shows quite clearly.

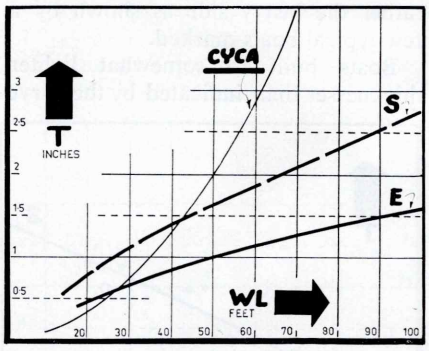


Fig. 4

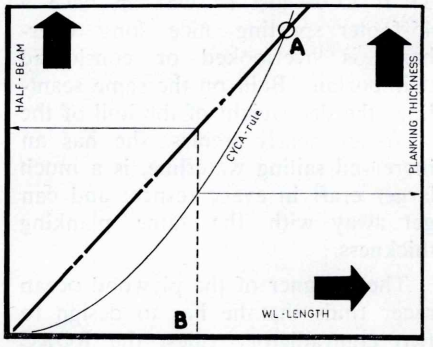


Fig. 5

Donald McKay's ignorance of the CYC rule has given us the most magnificent seagoing craft in maritime history — the Clipper ship. The medium-sized Baltimore Clipper was planked 4 to 5 inches thick. The CYC rule says 4 to 5 FEET thick (Fig 5). Nelson's flagship *Victory* was the most massively-built warship of her time, still she cannot take the broadside of the CYC rule. Her two feet planking designed to stop artillery fire is still only half that required by the ply rule.

Summing up

1. Whatever the purpose of the new CYC rule, its formula is based on false premises and thus produces unworkable results.

2 The formula sets the minimum acceptable planking thickness of the sheet ply boat without attempting to bring other construction methods in line. The rule is therefore discriminatory and contrary to the spirit of the RORC rule.

3 Basing the scantling rule on length of waterline only creates a loophole for boats of undesirable characteristics.

4 The sheet ply boat has to be designed to a hybrid rule while boats of any other construction have not. It will give an edge to one or the other.

5 Over 26ft waterline length the ply boat is invariably heavier than any other unless the rule is cheated. It could be and will be.

6 Cold-moulded ply boats are excepted. In effect it says that the amateur builder working by the cold moulding process without the benefit of right pressure to get a good glue joint can make a superior job for strength than the ply factory. This assumption could not be justified by any serious technical analysis.

7 Apart from the conventionally planked building method ocean racers are built — and still accepted — by a variety of building methods and an even greater variety of materials. The longest practical experience backs the conventional way of building and close next is the hardchined boat planked with sheet ply. The alloy boat, the moulded ply, the glass-reinforced resin and the foam sandwich construction are all here to stay but they are young in application. Practical experience with the most proven new materials of the lot makes it hard to see why the CYC puts a straightjacket on this particular building method.

Yacht-a-day builder surprised by his success

JACK KNIGHTS'

LONDON LETTER

JUST got back from France and the International Week of La Rochelle. This is a very fine, very big, very much organised regatta which has taken place for the last six years, at Whitsuntide (barring 1968, when it was cancelled at the last minute in deference to rioting students and striking workers).

Can you imagine five different Olympic circles, each with its own starting boat, rescue boats and mark-moving tugs? And this isn't the end of it, since the offshore boats, which muster at least one-third of the total of over 400 boats taking part, have their own courses too — sometimes long distance events, sometimes around local buoys.

The La Rochelle regatta is made possible only by the help of the French Navy, the French Army (which runs its own landing craft), the French coastguard and at least two of the various kinds of French police. In Britain such large-scale help from the Services would surely have every left-wing member of Parliament badgering the Speaker for time for a private question about wasting public funds, but in France (and in Italy and other authoritarian places as well) it is all taken for granted. Not that La Rochelle Week is just a great big massive yachting offensive with the participants as troops. On the contrary, it has a very special charm and personality which is indelibly stamped upon it by the ancient town of La Rochelle, a town which was built as a huge castle with a harbour in the centre and a harbour entrance where other castles have their drawbridges.

Much of the old castle remains. The entrance to the harbour is still dominated by two magnificent towers which were at one time joined by an arch. So the harbour, now given over to yachts since new commercial harbours have been dug elsewhere, is in the centre of this famous old town and completely surrounded by restaurants serving the best seafood you can hope to get outside New Zealand.

The local yacht club rises to its annual occasion magnificently, setting out places and phones for the press, bringing out a daily newspaper complete with results and topical stories, giving each yacht its own pigeonhole for information and, best of all, giving every overseas competitor free hotel accommodation and fat meal tickets (Total petroleum made this possible, this year.)

One sails on a neck of the Atlantic in comparatively shallow water, protected from the north by the Ile de Re. This year, the week brought sudden storms and rain squalls which in turn brought lightning changes of wind direction and changes, too, to the usually short wave pattern. Racing was given for Solings, Dragons, 505s, Fireballs, 470s, 420s, O.K.s, Finns (the largest, most international class there), Europa Moths, Canetons, as well as RORC classes III, IV and the French D class. Next year there will be racing for Flying Dutchmen too.

Anybody contemplating a racing trip to Europe should seriously consider coming early enough for Whitsun at La Rochelle. It may not provide quite as much useful Olympic practice as Kiel Week, but I bet it will give more sheer pleasure.

★ ★ ★

I COULD hardly leave La Rochelle without a visit to Michel Dufour's yacht works since he has suddenly become, much to his own surprise, about the biggest sailing yacht producer in Europe. It all started with his little Quarter Ton sized design, the Sylphe, a big, fat dinghy with a cast iron fin keel, and roomy and cleverly thought out accommodation. After Sylphe came Arpege, the same recipe, to Half Ton size and though designed as a comfortable cruiser, fast enough to win the Half Ton Cup. To date, Michel has sold 200 Sylphes and 270 Arpeges and he's now building at least one yacht a day. And they are by no means bargain basement products but beautifully finished, carefully put together craft which have to come very fully equipped and cost quite a bit more than most others of the same size. The only other boat Michel does is the Soling and already he's made around a hundred of these (I should have remembered to mention that 11 Solings were racing at La Rochelle for the first French championship, which was eventually won by a Swiss entry, built by Tylers of Britain and using Lowell North sails from California).

Dufour, like Tylers of Kent, is able to offer multi-coloured hulls with different pigments in the gel coats for topsides, underbody and boot top. In the joinery shop, a complete kit of all the wooden parts for each Sylphe and Arpege is loaded into a sort of king-sized, wheeled filing cabinet and trundled over to its intended boat in the moulding shop. Most of the deck fittings and and the bits and pieces for the upper part of the cabin (lights and such) are fitted into place on the deck moulding before this is joined to the hull. Arpege hulls are moulded in two pieces, then joined down the keel line. Each outer hull is bonded to an inner hull (as is the deck moulding to the deck head), giving extra rigidity and smooth surfaces everywhere. Altogether a most impressive production set-up and all started by a small, mild, self-effacing boat designer.

★ ★ ★

ERIC TABARLY, who recently crossed the Atlantic in hardly more than 10 days in the 63 ft trimaran *Pen Duick IV* and then proceeded to win the first trans Pacific single-handed race in record time in the 35 ft *Pen Duick V*, is proposing to build a *Pen Duick VI* in which to sail non-stop around the world, single-handed, within 200 days. And if anybody can do it, that man is Tabarly. *Pen Duick VI*, like the others, will be of alloy and built by La Perriere of Lorient, and she will be like the champion

Continued over

JACK KNIGHTS

From previous page

offshore yacht of 1967 — *Pen Duick III*, but probably with the flatter lines and wide, dinghy stern of *Pen Duick V*. Incidentally, Eric Tabarly has a fabulous story to tell about the Trans Pac race . . . of planing for 20 hours at a stretch, planing till exhaustion forced him to leave the helm and grab some food and sleep. For *Pen Duick V* was far too badly balanced to be self steering at these speeds. Beyond *Pen Duick VI*, Eric is planning *Pen Duick VII* for the next solo Trans-Atlantic race and she will probably be a proa, like the fantastic little *Cheers* which did so well, in Tom Follett's hands, in the last solo trans-Atlantic, but No. VII will be larger.

If you want to buy an alloy yacht, built for speed, and with little comfort below, you might do worse than get in touch with Eric Tabarly. He has one or two for sale, from time to time.

★ ★ ★

ROUND THE world in 200 days is for the future. Round the world non-stop in 312 days is actuality, and I have seen the yacht which did it. Robin Knox-Johnston's 30 ft *Suhaili* is the most old fashioned newly built craft I have ever seen, devoid of any trace of glass fibre and with hardly a synthetic fibre or piece of stainless in sight. She is in the direct tradition of Conor O'Brien and Slocum and Colin Archer, and looks strangely out of place amongst the fin keels and shiny fittings of today. Yet Robin Knox-Johnston built her in Bombay only four years ago.

★ ★ ★

FIRST time out since his Olympic victory in Acapulco, and with a new crew in the tall, blonde form of Julian Brooke-Houghton, Rodney Pattisson took *Superdocious* to easy victory in the big dinghy regatta at Whitstable, in England, at Whitsun. He needed a new crew because his old one, Iain Macdonald-Smith, was busy winning the Finn class on the same course. Iain, who trains in a gymnasium in the shadow of St. Pauls, alongside Gold Medal winning hurdler David Hemery, could be that which Britain has been seeking for so long — an international winner in the Finn class. The current world champion pair, John Oakeley and David Hunt, have sold their boat *Shadow* and will not be defending their FD title at the Worlds at Naples later this month. Meanwhile the British 505 class World champion, Larry Marks, having sold his plastic boat in Argentina, has recently taken delivery of a wooden hulled replacement (which lost its forestay anchorage, first time out). Larry is one of several in the class, in various countries, nominated to experiment with a spinnaker launching chute, forward of the forestay (which entails moving the rig, further back in the boat, than existing class rules allow).

★ ★ ★

THE International Yacht Racing Union's Class Policy Committee, meeting last month in beautiful Portofino, decided amongst other things to recommend that the Fireball be granted Group A international status. Since there is mounting public pressure for a small two-man centreboarder in the Olympics, to bring the number of dinghy classes up to three, and since the venerable International 14-footer is about the only Group A two-man boat on its lists besides the Flying Dutchman and the 505, this recommendation, assuming it is accepted and acted by the full IYRU, meeting next November in London, does really give this fast-growing class a fine chance of Olympic status for 1976. Now that they have trapezes and sizeable spinnakers, Fireballs offer great sport, giving just about the same sensation of speed as the Dutchman and 505 but with a lighter "feel" to the tiller and a considerably lighter "pull" on the pocket. I've just bought an old one myself and am enjoying racing it immensely.

OBITUARY - ARTHUR CECIL ROBB

MR ARTHUR C. ROBB, M.B.E., who died recently after a long illness, was one of the most talented yacht designers in the world. He was born at Hawkes Bay, 60 years ago, into a family with a farming and sailing background. After graduating from an agricultural college and an art school, Robb was apprenticed to a jeweller in Auckland and later he worked for a firm specialising in stained glass. All the time, however, his great love was the sailing and the design and building of yachts and dinghies. He achieved considerable local fame as a helmsman, but it was Herbert Stone, Editor of Yachting (U.S.A.) who gave him the encouragement to make yacht design his profession.

"Whatever you are doing now drop it and design yachts," was Stone's advice, when Robb entered a design competition run by Yachting. He therefore thought of making for America, but in the thirties with the war looming, Robb, who was in the local naval reserve, chose to go to Britain instead. After a season of offshore racing, he found himself on the Clyde and with 3/6d in his pocket he presented himself to Morris and Lorimers, at Sandbank, Argyll, and asked for a job, pointing out that he had come halfway round the world to work for them. He was yard manager within a year.

At the outbreak of war he went to sea asa n R.N.V.R. officer and rose to the rank of Lieutenant Commander. He worked in both the Admiralty and Air Ministry, in the latter being concerned with the design, with Uffa Fox, of the airborne lifeboat.

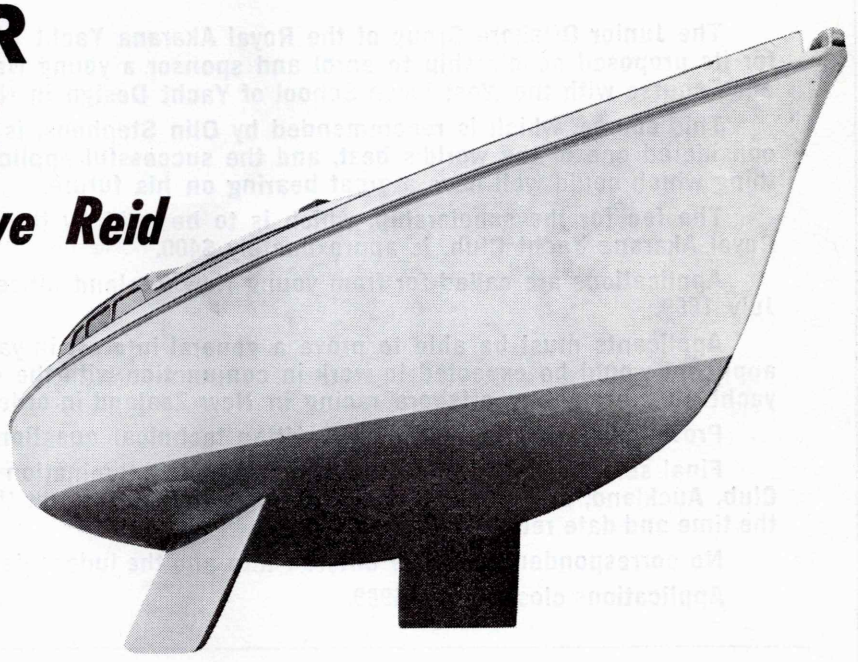
After the war Robb set up in practice as a yacht designer and the list under his name in Lloyds Register testifies to his skill, although he was even better known abroad and particularly in America, than in Britain where he worked. The 9-ton Lion class cruiser/racer, which he designed in the early fifties, now numbers over 350 all over the world. One of them *Siandra* won the Sydney-Hobart race twice. He always felt that his greatest offshore racing design was *Uomie* but the yacht on his drawing board at the time of his death will probably be regarded as his most beautiful. His best known local design is the 62 ft cutter *Kahurangi* which took line honours in the recent Auckland-Suva race.

The greatest blow of his life was the death of the Red Duster America's Cup project, on which he worked very hard. The pity of it was that he was such an artist and perfectionist that he found it difficult to delegate responsibility and so overworked himself.

When it comes to cruising . . .

TWO KEELS ARE BETTER THAN ONE

says Auckland's Clive Reid



Matariki, completed to hull and joinery stage and ready for the "finishing touches" from owner Clive Reid and his wife Ruth. "Twin keels and shallow draught open up a greater range of cruising grounds and mooring facilities as well as calling for minimum effort in the event of beaching," says designer Alan Wright

ONE mast, two masts or three, two-inch model or full-sized ketch, Clive Reid of Te Atatu, Auckland, has had a lifetime of building and owning boats . . . though this does not by any means make him an Ancient Mariner type. On the contrary, Clive is a very much with-it head of the Art Department at Rutherford High School, Auckland.

From early boyhood Clive has been building boats. It began with a two-inch model and included the famous *Coruba,* a fully-rigged two-masted miniature tops'l schooner only 14 ft long and one of the most photographed boats to sail the Bay of Islands.*

But model boats or modern boats, Clive has always been attracted to the unusual and the revolutionary, and the largest laminated twin-keel ketch to be built in New Zealand has been designed for him by Alan Wright, tutor in boatbuilding at Auckland Technical Institute. Mr Reid saw an article on twin keel boats written by Alan Wright (SEA SPRAY, November 1966) and decided that a twin keel would be his next boat and Alan Wright the designer.

Finished by the owner

Three twin keelers are currently being built in Auckland and Clive Reid's 37 ft auxiliary ketch has been completed to the hull and joinery stage by Denis Bettany and his father, "Turk" Bettany, at Long Bay. The interior will be finished by the owner at his home in Te Atatu, where the *Matariki,* as it will be called, was recently hauled up.

Powered by a twin cylinder MD2 Volvo Penta 16½ hp diesel driving through a 1.87:1 reduction and giving between six and eight knots, *Matariki* features kauri fore-and-aft strip planking over steam-bent ribs of Australian hardwood. Strip planking was decided on by the owner and designer because it eliminates the need for spilling the planks, steaming and caulking, as well as minimising fastening and cramping.

Designer Wright maintains that the twin keeler has many advantages, particularly where shallow draught is called for. "*Matariki* draws only 3 ft 9 in," says Mr Wright. "A conventional keeler of relative proportions would draw about six feet. This is the advantage Mr Reid considered most important in cruising. Twin keels and shallow draught open up a greater range of cruising grounds and mooring facilities as well as calling for minimum effort in the event of beaching."

In the water, says the designer, prevention of leeway is dependent on the keels being asymmetrically designed. Each has a straight outboard and convex inboard face, so that greater pressure is exerted on the outboard face of the leeward keel than on its inboard face. This pressure differential creates desirable lift to windward, increasing stability as pressure on the windward keel is more vertical than horizontal.

Matariki's 10 ft 8 in beam and six-feet-plus headroom offers ample scope for the artistic interior designer and, in fact, Clive and his wife Ruth are completing the work to their own design and drawings.

**Although Coruba was so popular with photographers during her days as a schooner in the Bay of Islands, Mr Reid himself never got a photograph of her in full rig. He would be delighted to hear from anyone who has such a photograph or who knows where one might be available.*

ROYAL AKARANA YACHT CLUB INC.

JUNIOR OFFSHORE GROUP DESIGN SCHOLARSHIP

The Junior Offshore Group of the Royal Akarana Yacht Club is calling for applications for its proposed scholarship to enrol and sponsor a young New Zealander to a correspondence course with the West Lawn School of Yacht Design in New Jersey, U.S.A.

This course, which is recommended by Olin Stephens, is spread over two years and is considered one of the world's best, and the successful applicant would be receiving something which could well have a great bearing on his future.

The fee for the scholarship, which is to be paid by the Junior Offshore Group of the Royal Akarana Yacht Club, is approximately $400.

Applications are called for from young New Zealand citizens under the age of 21 at 31 July 1969.

Applicants must be able to prove a general interest in yacht design and the successful applicant would be expected to work in conjunction with the measurers and inspectors of a yacht club promoting offshore racing in New Zealand in order to gain practical experience.

Provisional selection will be by written technical questionnaire.

Final selection will be by verbal and written examination at the Royal Akarana Yacht Club, Auckland, and finalists should be prepared to present themselves at the clubhouse at the time and date requested.

No correspondence can be entered into and the judges decision will be final.

Applications close 31 July 1969.

ROYAL AKARANA YACHT CLUB INC.

JUNIOR OFFSHORE GROUP DESIGN SCHOLARSHIP

ENTRY FORM

Please enclose $1.00 entrance fee with form and post to Royal Akarana Y.C., P.O. Box 854, AUCKLAND.

Surname .....

Christian Names .....

Address .....

Age (at 31 July 1969) .....

Employed as (state actual occupation) .....

By (name of firm) .....

At (place) .....

I hereby agree to the rules and conditions of entry as laid out, and if successful I hereby undertake to studiously apply myself to the scholarship for two years or longer if it is necessary to complete the course.

(Signed)..... Applicant

I understand that my son ..... has applied for this scholarship in good faith and realise that he must apply himself to his studies throughout the course and that should he fail to do so the sponsoring body reserves the right to withdraw the scholarship.

(Signed) ..... (Parent or Guardian)

BOTTLEGAS IN YOUR BOAT

THIS article is designed to assist those whose craft are now fitted with bottlegas, and those contemplating its use, and to answer briefy various questions asked, such as, what is this stuff? What types of bottlegas appliances are available? How do we use it? How do we test for leaks? Is it dangerous? etc.

Firstly, bottlegas is Propane, a chemical compound consisting of a mixture of hydrogen and carbon which when mixed with the correct amount of air, burns with an intensely hot flame. It is also known as L.P. gas, the L.P. standing for liquefied petroleum and not low pressure as many believe. The gas is non-toxic and non-poisonous, while for safety reasons a distinctive odour has been added.

The contents of the bottles are, in fact, liquid, and the gas is generated by means of air temperature on the exterior casing. The gas generated will vary in pressure from approximately 70 PSI on a cold day to as much as 190 PSI on a really hot day.

Now to appliances available for use with Propane in New Zealand. These range from soldering torch kits through to hot water heaters, space heaters, barbecues, etc.

I personally find a small torch kit extremely useful on board, to repair wiring etc., whilst a barbecue on the beach the easy way can be most enjoyable (of course I prefer the easy way!).

Bottled gas equipment is of two types, one being high pressure, which operates directly from the cylinder at the pressure in that cylinder according to outside air temperature. This type is normally used for camping purposes, although quite suitable for small runabouts where the weight factor must be considered.

Portable lights of high candlepower are available operating on the same basis, even high pressure portable heaters can be readily obtained and are very efficient.

The other type of equipment is termed low pressure, and this is the type favoured for larger craft. Cookers range in size from a single burner to a full-size domestic range, incorporating four burners on the top, one grill under and a large oven. This, of course, will suit boats of 40 ft or larger.

One popular size now available has two burners on top, one grill under and quite a reasonable-sized oven, suitable for smaller craft as it measures overall 20 in by 17 in by 17½ in. I use the half of this cooker—the top half, meaning the two burners and grill but without the oven. To my mind grilled foods are preferable. This has been installed for three years without any trouble.

Also available in low pressure are water heaters in two sizes, one which supplies water to the sink and also

BY C. A. WILLETTS

operates a shower, the other supplying water to the sink only.

Heaters — or should we perhaps say "gas fires" — are also available on low pressure systems, while many yachts are fitted with low pressure gas lights screwed to bulkheads etc.

And we must not, of course, forget refrigerators.

One brand only is available in New Zealand today, but it is very efficient. Size is limited to two cu ft. The only problem is deciding what this unit is to contain. I feel that a fair amount of available room should be devoted to what some skippers term the necessary, but the feminine touch plumps for, of all things, perishable foodstuffs. However, not all think alike in this matter.

Assuming you have decided on a low pressure system as most suitable for your purpose and you have made the difficult choice from 15 or so brands of cookers on the market, next turn to the cylinders. What size do you need? How many will you be cooking for and for how long?

The average cooker uses a little less than ¼ lb of gas per hour per burner, so ½ lb per hour on two burners would be normal. Most cookers are in use roughly 1½ hours daily, giving a total consumption of ¾ lb per day. Thus the 20 lb cylinder most boats have fitted would last roughly 26 days. Cylinders range in size from 10 lb to 65 lb according to the amount of gas contained.

Individual useage varies, but it has been found that the most popular cylinder, the 20 lb, will give a burning time of 45 hours, just one month.

Should a refrigerator be fitted, it will be found to consume between ½ to ¾ lb gas daily, according to temperature desired.

Having decided on cooker and bottle size, the regulator comes next. This is in most cases fitted directly on the bottle valve and its function is to lower the pressure in the bottle to that required to operate a low pressure cooker, approximately 6 oz PSI or 11 in SW gauge. Most regulators are pre-set at point of origin and therefore ready for immediate use.

The next requirement is seamless copper pipe fitted to the outlet side of the regulator. Quarter-inch OD will usually suffice to operate both cooker and refrigerator, and may be fitted up to 25 ft in length; over this distance it would be advisable to use larger diameter piping. Never forget that vibration is always present under way and allow enough copper pipe to obtain three or four coils — preferably at each end — to absorb that vibration, otherwise the pipe could fracture.

Some craft are fitted with a petrol quality plastic hose with a very heavy

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BOTTLEGAS IN YOUR BOAT

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wall. This is not usually recommended particularly where piping is fitted in the bilges. A large number of boats use a petrol motor and a fire or explosion would, of course, melt this plastic hose, thus adding fuel to the fire. In many cases, too, plastic hose down below has been damaged by ballast shifting etc. Some smaller craft have the gas bottle mounted directly under the cooker and run perhaps two or three feet of plastic hose between. This would be satisfactory provided the correct hose and clips are used.

Yachtsmen will wonder how copper pipe would suit a gimballed stove. The correct procedure is to connect roughly 18 in plastic hose to copper pipe. This will allow your stove to pivot freely, and copper pipe terminal fittings are readily available.

Many questions have been asked in connection with Propane and fittings etc., so a series of questions and answers could assist with your own problem.

Q.—Is Rockgas safe?

A.—Rockgas is as safe as any combustible fuel could be providing your appliance is coupled up in the correct and approved manner and tested for gas leaks.

Q.—How do we test for leaks?

A.—All connections from the valve spindle on your bottle right through to the appliance should be occasionally brushed with a soap and water solution. A small medicine-type bottle together with an artist's brush would suit. Any leaking joint will immediately blow a series of bubbles. NEVER test for leaks by running a match across the joints. It is incredible to see the number of boaties doing just this. This is an excellent way of acquiring a set of wings and a harp.

Q.—May a cylinder be used on its side?

A.—No. The reason being, your appliance is designed for gas operation, and by using a cylinder on its side liquid Propane would flow to the cooker, instead of gas. This liquid Propane is 200 times more concentrated than the vapour and, of course, would be hazardous to use.

Q.—My cooker does not appear to have a large flame; could I increase this by adjusting my regulator?

A.—Definitely not. The adjustment on the regulator top is for servicing and can only be made on a water gauge which few possess. Adjustment could result in the regulator delivering a far higher pressure than your cooker is designed for and could mean blown glands behind your on-off taps. The resulting blow-off would mean at the very least, scorched eyebrows plus an expensive repair bill.

Q.—Why is low pressure preferable to high pressure on boats?

A.—Should a leak occur on high pressure systems the least thing which could happen is that all your gas would be gone in a very short space of time, not to mention large quantities of gas floating around the bilges.

It is a fact also that low pressure appliances are quiet in operation while high pressure types do roar somewhat.

Q.—When installing copper pipe, which type of brass fittings should be used?

A.—Flared fittings are definitely superior to compression fittings, mainly because these can be disconnected repeatedly without leakage problems. For connections which will be permanent, compression unions would suffice.

Q.—My cylinder has on the valve opposite the outlet orifice another sort of outlet. What is this?

A.—Your bottle valve incorporates a pressure relief valve which avoids danger from a bottle exploding due to excess pressure.

This valve would operate usually at temperatures of 165°F. This, of course, is no problem in New Zealand. In any case your bottle is designed to withstand a pressure of 480 PSI.

Q.—How do I adjust the flame on my cooker and when is it correct?

A.—Most low pressure gas cookers incorporate an air adjustment screw of various types. English brands usually have air adjustment in the form of a ¼ in Whitworth screw with lock nut, this situated in the body of the burner. This may normally be reached by removing the top cover plate. It will be found that when this adjustment is screwed almost right home, thus reducing air, the flame will be extremely yellow. Correct setting is then to back the screw off until the flame is a blue with lighter blue-coloured tips; you would then have maximum efficiency. Should the screw be backed off too far the blue flame may rise off the actual burner and appear intermittent and jumpy. This is incorrect. Screw should then be gently taken up again until the flame tips seat against the burner cap. Japanese cookers sometimes have an air adjustment knob alongside the on-off taps; the procedure then is the same as for English-made cookers.

Q.—How do I know when the gas bottle is empty?

A.—The usual full weight of your bottle (20 lb) will be 43 lb. A set of $1.00 balance scales carried on board and used occasionally will keep you posted on gas supplies.

Q.—Is it possible to convert a kerosene cooker to gas?

A.—This is unlawful. The law covering all gas appliances states that no person shall convert or change from its approved pattern any gas appliances, and any person doing so is liable to a $200 fine. Furthermore, any firm supplying those parts is held equally responsible and liable to the same penalty (see Dangerous Goods Regulations 1958). This law, of course, is necessary for safety reasons, particularly in New Zealand where so much is done on a "do-it-yourself" basis.

The information given in this article should clarify and perhaps assist some skippers; indeed that is its purpose. Should any other problems arise, your supplier will be only too happy to advise.

The HUGH POOLE Story

'WE LEARNED A LOT ABOUT THE NICETIES OF YACHTING'

BY JACK GUINEY

A story of determined development and effort, persistence and drive which has been crowned with national success and recognition as both a yachtsman and administrator in the sport has been told to me over the past few weeks by Wellington's Hugh Poole.

It makes fascinating reading. Apart from hints on how to make a boat go faster — relayed from experience at the Rome and Mexico Olympics, where he was New Zealand manager — it contains other seeds. It shows how H. D. Poole took such seeds, cared for and nourished them and made them grow. It tells of setting a target and working, scheming and planning until that target is zeroed in for a bullseye — weather permitting.

It also shows how over-confidence can lead to some chastening drubbings and downfalls.

In telling his story to Sea Spray, the Wellington yachtsman's aim was to provide some help from his long experience for the now wide-open and highly-competitive Sanders Cup contest. He announced his withdrawal in Sea Spray in June, when we told the story of his third successive Sanders Cup win.

This record-breaking achievement, the first triple successive year win in the same boat, crowned a long and successful career which encompassed the national Idle Along and R class crowns. It also shows that, despite the stable one-design hull, the X class is today a development class, using the latest techniques in mast and sail design and setting.

But let Hugh Poole tell his own story . . .

IN 1956 we won the Moffat Cup, the New Zealand Idle Along championship in *Loraine*. We thought we knew then all there was to know about yachting.

"So, with the advent of the new X class design, we decided to try to knock off the Sanders Cup. Next year, we built *Beryl*, which started as a supplied glass hull fitted with fore and aft bulkheads like an Idle Along and carrying her spinnaker boom on deck. She also had a full-width traveller with which I had been experimenting since 1952. I fitted roller reefing to the main. This was operated from one handle which could reef two feet of sail in 10 seconds.

"*Beryl* had a swivelling mast and sailed in heavy weather with one man on trapeze. She had an Idle Along jib and came second in the Wellington trials to John Gillingham.

"I went to the Sanders Cup in Akaroa that year as Wellington manager to see John Morrison in Canterbury's *Pinta* use two trapezes, with the for'ard hand deck-stamping. We had considered that with two men on trapezes, the new design was too unstable. We were learning.

"In 1958 after some fun and games, we learned deck-stamping and went on to win the Wellington trials in *Beryl*, in light weather.

"In the Sanders Cup we won three races in a blow, with Idle Along jib and rolled-down mainsail. Auckland's Tommy Miller sailed without a headsail to finish second in each of these three races, and won four others in light weather to take the cup.

"Next year, 1959, I crewed for Pat Millar in the *Valiant* as mainsheet hand. I sold *Beryl* after the 1958 contest as I was building a new house. We put side bulkheads in the *Valiant* to allow us to stow the spinnaker boom inside the boat. Today *Charade*, in which I won the Cup this year, is still built like the *Valiant*.

"We came second to Phil Hartley in the trials after losing our bowsprit while holding a lead in the last race.

"This year I built the Cherub *June* for spare-time sailing.

Bendy rig ideas

"In 1960, the *Valiant* won the Wellington trials and went to Auckland to take the Sanders Cup. We beat Auckland's Tony Bouzaid and Manawatu's Bill Benetto to regain the Cup for the first time for more than 20 years.

"The same year I went to the Olympic Games in Italy as New Zealand manager and came home with ideas on building a bendy rig for the Sanders Cup. I sailed George Gibb's *Chamois* with Bob Spearman as for'ard hand and won the Leander Trophy, the R class national contest, beating both Mander brothers.

"I was still playing round with a full-width traveller but could not get fully efficient operation. We were also learning about trapezing, partly from Pat Millar in the *Valiant*, partly from the Cherub *June*. Three years after we had considered an X really too unstable for trapezes, we were using them on the much less stable Cherub.

"In 1962 I built the *Idano*, in which we came second to Sanders Cup winner Pat Millar in both 1962 and 1963 Wellington trials. The *Idano* won all the light-weather races, but seemed hopeless in a blow.

"With the new year, 1964, Poole built another X class, *Gidgette*. Worser Bay's Phil Bates, who had started sailing X class in 1957 and from nowhere had been steadily improving, had won the 1964 trials in heavy weather, with *Gidgette* second. *Gidgette* was successful in the light but came later in a blow. His crews over these years were Trevor Manning for'ard hand, Don Simm mainsheet, with Ken Hill an earlier member.

"Then in 1965 we won the Wellington trials with *Gidgette*, with 13 stone Graeme Morris, Trevor Manning 14 stone and myself 12 stone — a total of 39 stone.

"We contested the Sanders Cup which this year was won by Canterbury's Alan Burgess at Lyttelton. Don Lidgard had sailed for Auckland with a 29 stone crew and I realised we had to get the weight down.

"We were considered generally not impressive and likeliest to succeed in heavy weather. We had this only in

Continued over

The HUGH POOLE Story

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the last two races. We capsized gybing in one of these, and won the other.

"The Canterbury measurer, and Olympic Gold Medallist, Jack Cropp said while he was measuring *Gidgette* that she was the worst X he had ever seen. Seeing he was a boatbuilder I took him up, and suggested he might try to do better.

"So *Charade* was built as a last fling to win the Sanders Cup. My old for'ard hand, Trevor Manning, went overseas so Graeme Morris went for'ard and we brought in Tony Dobbs who had just recently come to Wellington from Wanganui. This brought our crew weight down to 35 stone, which was a big help.

"In 1964 and 1965, I had been playing round with Flying Dutchmen and learning more about flexible rigs. I had also seen how well Southland's Merv King went at Lyttelton in 1965 until he broke his mast.

"Returning from Lyttelton after the 1965 Sanders Cup, I fitted up an old Flying Dutchman mast of 3 in diameter. This was considered exceptionallly small at this time."

At this stage Poole was still sailing *Gidgette,* which went much better with the new rig. He was also playing with ideas on mould cut mainsails as he could not get the exact shape he wanted in his mainsail.

"We spent the winter of 1965 making a mould and sail, while Jack Cropp built *Charade's* shell. She was two skins of cedar covered with fibreglass. We finished the hull, decks and sidetanks. Then we took the fittings off *Gidgette* and launched *Charade* in November 1965.

"In 1966 we won every race in the Wellington trials. The small mast was bending like a whip, but the boat was going like a rocket. Then, two weeks before the Sanders Cup contest at Bluff, we sailed *Charade* at the Anniversary Day regatta at Petone. For the last race it was blowing a strong southerly. We came ashore with compression cracks on the back face of the mast.

"I cut off the back face and rebuilt the mast bigger fore and aft. It measured 3⅜ in instead of the previous 3 in.

"At Bluff we were hopeless. The mast was too stiff and we were outclassed and outsailed. Towards the end of the contest, in an attempt to get more mast bend, we ripped off the back of the mast, through the track, with a ripsaw. This helped a little but in the delegates' race, in the best breeze of the contest, George McLune, sailing the boat, broke the mast quarter of a mile from the finish while in the lead."

"On the way back to Wellington we designed a new mast, which we built that winter and fitted with check

Hugh Poole with Graeme Morris (for'ard) and Tony Dobbs (mainsheet) sailing Charade off Petone Beach in 1966
—Wellington Evening Post photo

stays. By now we had perfected a full-width traveller, using Proctor fittings with control strings."

Before this contest, *Charade* had been rigged for central sheeting. They persevered with this system for six weeks but its advantage — one only — leeward boom bend easing the leech in a blow, was outweighed by disadvantages. These were (1) double weight on the central control cord needing extra purchase and heavier cord; (2) impossible to overcentre traveller without relaxing leeward control cord in light weather (3) with deck stamping heavy weather and the mainsheet hand taking rope in light, "the middle of the boat was always a mess"; (4) the system made extra difficulties in bringing the spinnaker boom up from below deck.

"And with our super bendy mast we were getting plenty of leech sag without central sheeting."

Spending much of the winter of 1966 playing with the mast, Poole continued this interesting activity into the summer of 1967. "When we got it right, the boat really went," he says.

"We took the first check stays halfway to the hounds measured from the deck. We then removed them, and fitted swinging spreaders at the same point.

"We then added check stays and spreaders to half the distance. Just before the Sanders Cup in 1967 we left the spreaders at the halfway point, dropped the check stays 2 ft 6 in, and found we could then control the mast to bend exactly where we wanted it.

"We once again won every race in the Wellington trials and took off to Auckland for our last effort to win the Sanders Cup.

"Our mould-cut mainsail was good, our spinnaker average, but I was still not happy with our jib. Helmer Pedersen made me a new low cut jib which was hopeless, so when I took the boat to Auckland one week before the Sanders Cup, Helmer came sailing on Saturday. On Sunday we unpicked and remade the jib and set up all sails in Helmer's yard, as he was due in the Flying Dutchman championships in Sydney while the Sanders Cup was being held.

"We headed back to Auckland the next Thursday, Easter Thursday, with confidence in our sails and also our sailing techniques, which we had sharpened up on the flat water of the Wanganui River just previously.

"For the 1967 Sanders Cup series, we realised Don Lidgard as previous winner, was going to be hard to beat. It turned out that in a moderate breeze we could beat him comfortably on the wind, but he and his crew were particularly good down wind.

"They were experts on fast sail trimming and we learned a great deal about such niceties of yachting during this contest. It was a very tight contest, and we finished up winning the cup in 1967 in a very close finish in the last race, with Auckland.

"I had realised a big ambition, but I was still not satisfied that the *Charade* was going well enough in light weather."

[● The second part of the Hugh Poole Story will be told in next month's Sea Spray.]

Fletcher Timber Plyco Products Division

$300 DESIGN COMPETITION

for a 17 foot plywood runabout

IN ASSOCIATION WITH SEA SPRAY AND THE P.B.R.O. INC.

First Prize $200 **Second Prize $60** **Third Prize $40**

THIS competition is for the design of a runabout suitable for amateur construction in Fletcher marine grade sheet plywood. The design must be of a type likely to appeal to the public as a craft for family recreational water sports.

100—The competition is open to amateur or professional designers.

200—The design shall be suitable for use with propulsion systems in the following categories:

201—Outboard motors from 25 to 125 hp.

202—Lees Falcon/Argonaut Outdrive.

203—Hamilton Jet units.

300—The design shall comply with P.B.R.O. Inc. Regulations as follows:

301—Maximum moulded length 17 ft.

302—The control position must be situated to give 360° visibility in all conditions. The driver must be able to see over the windscreen. Where the control position is inside the cabin a hatch must be provided over the driver's head.

303—50% of the length of the boat from the bow, decked with rigid materials.

304—Under the covered section referred to in 303 above there shall be not less than two feet of fore and aft length of seating of a height not less than 9 in and having a minimum headroom above the seat of 3 ft.

305—The seating referred to in 304 above must be capable of seating two adults.

306—At least ½ square ft of window area on each side of the covered space referred to in 304 above.

307—The majority of the cabin and cockpit must be properly floored.

400—Drawings — All plans to be drawn in black ink on tracing paper, with the bow facing right. The plans must be drawn in firm lines with a view to being reduced considerably for reproduction in magazines; no very fine lines should be used, and all lettering should be of clear block and sufficiently large to be decipherable when reduced to a quarter or a fifth the size. Lettering with an index for reference may be used if desired. Each sheet of plans must have vertical and horizontal scales drawn on the lower left corner. The designer's name and address must appear in the bottom right-hand corner on each separate sheet of plans and on the top right of the specification and descriptive notes.

401—All line drawings shall be to a common scale of 1½ in to 1 ft.

500—The designer shall present, numbered as follows:

501—A lines plan to show at least three buttock lines, a load water line and at least two other water lines or water planes, a curve of areas, at least two diagonals and eight half sections or stations spaced to coincide with the designer's frame stations. The Plan, Profile and Body plan on this sheet shall not be superimposed on each other. The designer shall show on this sheet, the method used to determine the generation of plywood sheet over the bottom and topsides, except where "flare" may be used in the topsides.

502—Table of offsets, to the outside of the planking, offset datums to be the centreline and the waterline (heights above LWL to be prefixed +, below LWL to be prefixed —). Corrected table of offsets from loftings. The designer shall retain and store these loftings until the results of the competition have been published. Calculations for at least the following — Displacement and Centre of Buoyancy, together with any further calculations the designer may choose to present.

503—General arrangement plan to include cabin plan, elevation and deck plan and at least two sections or half sections. The outboard well, location of batteries and fuel tanks and navigation lights.

504—Installation plans for the Outdrive installation showing transom and engine bed details, engine box and ventilation, 15 gal. fuel tank or tanks, battery and exhaust system. (Note details of 503 and 504 should comply with P.B.R.O. Inc. Safety Regulations for Offshore Power Boat Races 1969.)

505—Construction plan to show clearly the materials to be used and at least three sections are to be shown together with the outboard, outdrive and jet transoms; construction details of the cabin and outboard well and any structural variations for the outdrive or jet installations.

506—Specification: A short specification is to be submitted giving principal dimensions, materials and essential items of equipment; and in addition, descriptive notes, not exceeding 500 words, in which the designer may draw attention to certain features of his design. Specifications and notes should be typed double spaced on one side of foolscap paper. Specification, description, and all wording on the drawings are to be in English, and all measurements are to be in feet, inches and eighths.

600—Judges: A panel of three judges will be appointed by the Power Boat

RUNABOUT DESIGN COMPETITION

From previous page

Race Organisation Inc. The decisions of the judges are final and binding to all persons.

700—Copyright: All designs remain the copyright of the designers, but the organisers reserve the right to publish any designs submitted and to display them as and where they think fit. It is their intention to publish the prize winning designs, and any that are specially commended, in SEA SPRAY and also to hold an exhibition of all designs submitted, after the results have been announced. It is also the intention of the organisers to offer the winning designs for sale on a royalty basis to be negotiated with the designer.

MATERIAL SPECIFICATION

Fletcher Plyco Marine Grade plywood is available in Pacific Mahogany, White Pine, Kauri and Totara mirror-surfaced, in the following thicknesses:

Sheet size 8' x 4'.

3/16", 1/4", 5/16", 3/8", 1/2", 3/4" and 7/10".

All veneers are selected and bonded with a weather and boil proof phenolic resin adhesive conforming to N.Z.S.S. 1154.

Where sheets longer than standard lengths are required, scarf jointed plywood is available. The scarf joint is bonded with a colourless and waterproof synthetic resin adhesive in accordance with international marine standards. Available in lengths from 9 ft to 25 ft in one foot increments, by 4 ft wide.

800—Closing Date—Entries must be received, addressed to the Editor, SEA SPRAY, P.O. Box 793, Auckland, New Zealand, not later than 5 p.m. November 1st 1969.

900—While every effort will be made to return the drawings in good condition, the organisers cannot accept liability for damage or loss. Entrants should post their plans in a cardboard roll with 1 set of prints of each tracing. Tracing paper sizes shall not exceed 24 in x 36 in.

WITH THE CONSTITUTION OF THE NEW ZEALAND YACHTING FEDERATION CURRENTLY UNDER REVIEW, G. P. HEDGES TAKES A LOOK AT THE PRESENT SITUATION AND SUGGESTS TO YACHTSMEN AND YACHT CLUBS . . .

LET'S GET TOGETHER

THE Constitution of the New Zealand Yachting Federation is now under review and this is an opportunity, which all yachtsmen should sieze, to see that the organisation and control of their affairs is put on a sound national basis. Before considering the form the Constitution should take, we need first to decide on the purpose of the N.Z.Y.F. and the duties we wish it to fulfil.

In the past these duties have been confined largely to Olympic matters — raising the levy and selecting and organising teams etc. As only a minute proportion of yachties are of Olympic potential, and quite a few have very little interest at all in such matters, the affairs of the N.Z.Y.F. have aroused but small excitement or discussion in the average cockpit or foredeck or dinghy launching ramp. The compulsory Olympic levy has been unpopular. The management of Federation affairs appears to the layman to be characterised largely by inter-regional jealousy. Auckland, with its overwhelming numbers of yachts, clubs and yachties has felt it is unjust that it has only the same voting power as, for example, Otago. No doubt, for their part, the other regions have been suspicious that the big bullies from Auckland were once again trying to take over National affairs.

We must get away from such parochial and limited outlooks. It seems almost banal to say that Federation affairs should be managed for the benefit of **all** sections of yachting — be it cruising, racing or motorboating on a National basis, yet it needs to be said. While the selection and despatch of an Olympic or other International team is obviously an important duty of the N.Z.Y.F., there are other matters which are just as important, and which affect many more of us very closely.

The N.Z.Y.F. is our representative on the I.Y.R.U. and should promulgate information and rulings from that august body. For instance it is highly desirable that the N.Z.Y.F. should publish a booklet of the new racing rules, together with any New Zealand special prescriptions and they should announce the date when such rules are to come into force in New Zealand. It is through the N.Z.Y.F. that anyone should be able to suggest future amendments to the racing rules and of course they are the body to whom appeals should be made. (Incidentally, why are there so few protests and appeals in New Zealand? Is it because the machinery is clumsy, or because our racing isn't keen enough, or because of an "that's near enough, she'll be right" attitude?)

The N.Z.Y.F. should vet carefully the one design and restricted classes (other than the international classes such as the Dragon, F.D. and Finn which are controlled by the I.Y.R.U.) and if their constitutions, class rules and measurement organisations are good enough, and their distribution is wide enough, these classes could be registered as "national" classes. In this way the Federation would have some controlling influence over the classes while largely leaving them to run their own affairs. Owners joining such classes would know that they are soundly based and that a boat bought and measured in Auckland would still be accepted in, say, Christchurch.

A joint fixture list of important meetings such as national trials, national championships, etc., should be made out to avoid clashes and where necessary this should include tying up international dates, particularly with Australia.

The N.Z.Y.F. should also act promptly to protect the interests of all yachtsmen from threatened attacks on their liberty (or purses) by Government Departments, Local Bodies, Harbour Boards, etc. The Federation, speaking with the power and authority implied by its ability to sway perhaps 100,000 votes (directly and indirectly) would be able to halt unreasonable proposals, or force action when something needs to be done.

It is obvious that all these, and many other, responsibilities which the N.Z.Y.F. should accept will entail a lot of work. A permanent full time secretary/manager is needed, with power to run day by day affairs and

able to make minor decisions and submit them afterwards for ratification. A council or committee (call it what you will) is needed which is small enough for action, wide enough to be representative, and which will meet at frequent intervals so that no major decision is ever long delayed. As a suggestion, 18 members would make a suitable council. If members are elected for three years and six come up for re-election each year there will be a desirable element of continuity, and 18 members will allow some division into sub-committees. These members should be selected from the country as a whole on the basis of their ability and enthusiasm as yachting administrators, and because of their special interests — say in motor boats, racing rules, yacht measurement and so on.

It is also obvious that a permanent secretariat of sufficient calibre, and the travelling expenses of such an active council will cost a lot of money, but yachties would be content to pay if they can see a benefit and service to their sport as a whole and if they can feel themselves directly enough involved through the voting power of themselves or their clubs.

The regional yachting authorities have done excellent work in organising, co-relating, tidying up and protecting local yachting. In effect the N.Z.Y.F. should do much of the work on a national scale at present being done by the local authorities and this will mean a reduction in their responsibilities and work, which the regions will no doubt accept with relief.

It is in the light of such needs that we should look at the various constitutional changes about to be considered by the N.Z.Y.F.

One way of organising the central "council" would be for it to comprise (as in effect it does at present) delegates from all the major and minor associations. **This I think is highly desirable.** It would perpetuate the attitude of "representing" parochial interests and continue local rivalry. The national body should not be an association of associations. For the ruling body to **be** national, and to **think** nationally, it should be **elected nationally.**

An alternative being suggested is that club representatives should meet at an annual general meeting and decide on a policy. A council would then be nominated by the various regional authorities, to carry out this policy. It doesn't seem clear how the A.G.M. can decide on a policy in sufficient detail to be useful. Nor is it clear how the regional authorities would select or elect their representatives on the council. To avoid parochialism it is very important that such representatives should only accept their posts on a national basis. They should accept no direction or responsibility for furthering the interests of the region nominating them, otherwise the whole set up will fall into disrepute. It is also not clear what happens if club delegates at the A.G.M. are unhappy about the actions of a council. What can they do about it, if they are not, in fact, the electors?

Another alternative being suggested is that the council should be elected by the votes of yacht clubs, based on a sliding scale according to membership (and thus also directly tied to the fees paid by the club to the N.Z.Y.F.!). The ballot would be from a list of names proposed and seconded by various clubs and giving a list of the activities, experience and interests of the willing victims.

A further modification suggested by some clubs is that the N.Z.Y.F. should be opened to private members entitled to one vote (and perhaps paying the same fee as the smallest yacht club?). Voting would then be a combined yacht club vote (on sliding scale) and private members vote. This, in effect is the way the R.Y.A. is run. Before the war private membership of the R.Y.A. was unusual, but for several years now they have been actively encouraging and promoting this to widen the base of the association, to increase its income and to increase its power and authority when dealing with Government, etc. Just a thousand private members would probably double the income of the Federation and go a long way to putting it on a firm financial basis. Surely there are easily that number of keen and conscientious yachties who think on a national basis?

There are obviously other variations on how the N.Z.Y.F. should function, and what its duties should be. The object of this article is to get **you** thinking about the problem and pressing for **your** club to take an active and intelligent part in discussing the new constitution.

Whatever we do, let us put New Zealand yachting first, and "Let's get together . . . !"

N.Z. SHOULD HAVE SOLINGS BY CHRISTMAS

THE first Solings should be in New Zealand by Christmas. Moulds for the new Olympic class will reach here next month and the first boats will be completed in time for the holidays.

The Royal New Zealand Yacht Squadron, who are promoting Solings, have ordered moulds from Rudders Yachts Pty Ltd, the Australian makers of the new class, and a ready-to-sail demonstration model has also been ordered for exhibition at the Auckland Boat Show.

Mr Don Colebrook, who is handling the Solings on behalf of the Squadron, says that negotiations have almost been completed with Fibreglass Moulders Ltd, Papatoetoe, for manufacture of the boats, which will retail, complete with spars, rigging and fittings but without sails, for $2750 — considerably better than the current Australian price. This includes an allowance of $300 for fittings, which means that the final price could be slightly lower.

"Somehow the story has got around that we are buying secondhand moulds from Rudders," says Mr Colebrook. "This is nonsense. Rudders began making Solings 15 months ago and after producing about 50 boats the moulds naturally began to get a bit past it. So they imported a set of plugs from Norway and made new moulds. The New Zealand moulds will be brand-new, made from these plugs."

A Soling Owners' Association is expected to be formed as soon as the first boats are ready, and anyone interested in the new class is invited to contact Mr D. Colebrook at 664-185 (business) or 361-713 (home).

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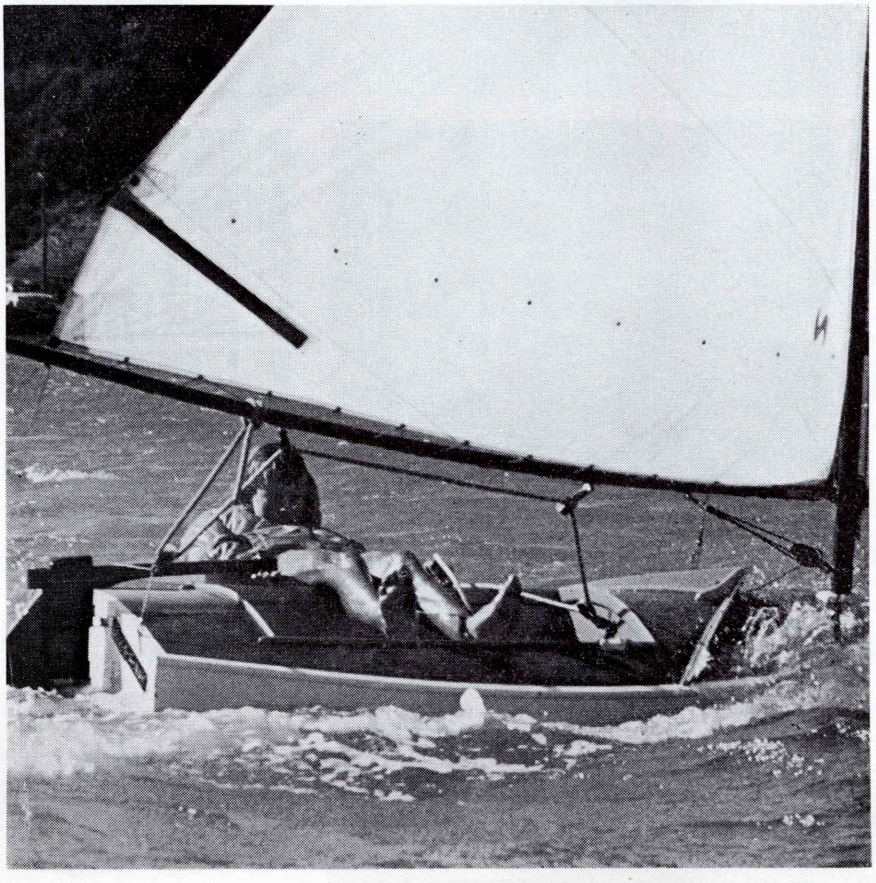
ROYAL AKARANA Y.C. PHOTO COMPETITION PRIZEWINNERS

THE ROYAL AKARANA YACHT CLUB'S $200 PHOTOGRAPHIC COMPETITION ATTRACTED 95 ENTRIES FROM ALL PARTS OF NEW ZEALAND. THE WINNING PHOTOGRAPHS ARE REPRODUCED ON THE PAGES WHICH FOLLOW, AND ALL ENTRIES WILL BE ON DISPLAY AT THE ROYAL AKARANA YACHT CLUB, OKAHU BAY, AUCKLAND, FROM FRIDAY NIGHT TO SUNDAY, JULY 11, 12 AND 13.



THE competition was divided into three classes, Sailboats in Action, Miscellaneous Yachting and a special Children's Competition. Prizes were awarded in all classes and the judges were Messrs Alan Sefton, Yachting Reporter of the Auckland Star, Henry Hope-Cross, Technical Director of Agfa-Geveart N.Z. Ltd and Ken Searle, Commodore of the Royal Akarana Yacht Club.

Winning entry in the Sailboats in Action class, entitled "Sails By The City", is on the facing page and First Prize of $50 goes to

Alan Cooke,
33a Fleet Street, Masterton

Second prizewinner in this class ($25), above, shows a Sunbeam catamaran rigged with an R Class sail on Hamilton Lake and was taken by

Cedric Ingerson,
55 Knighton Road, Hamilton

Third prizewinner ($10), left, sparkling with sunshine, sea and sailing action, was submitted by

Maurice Barton,
18 Collins Avenue, Linden

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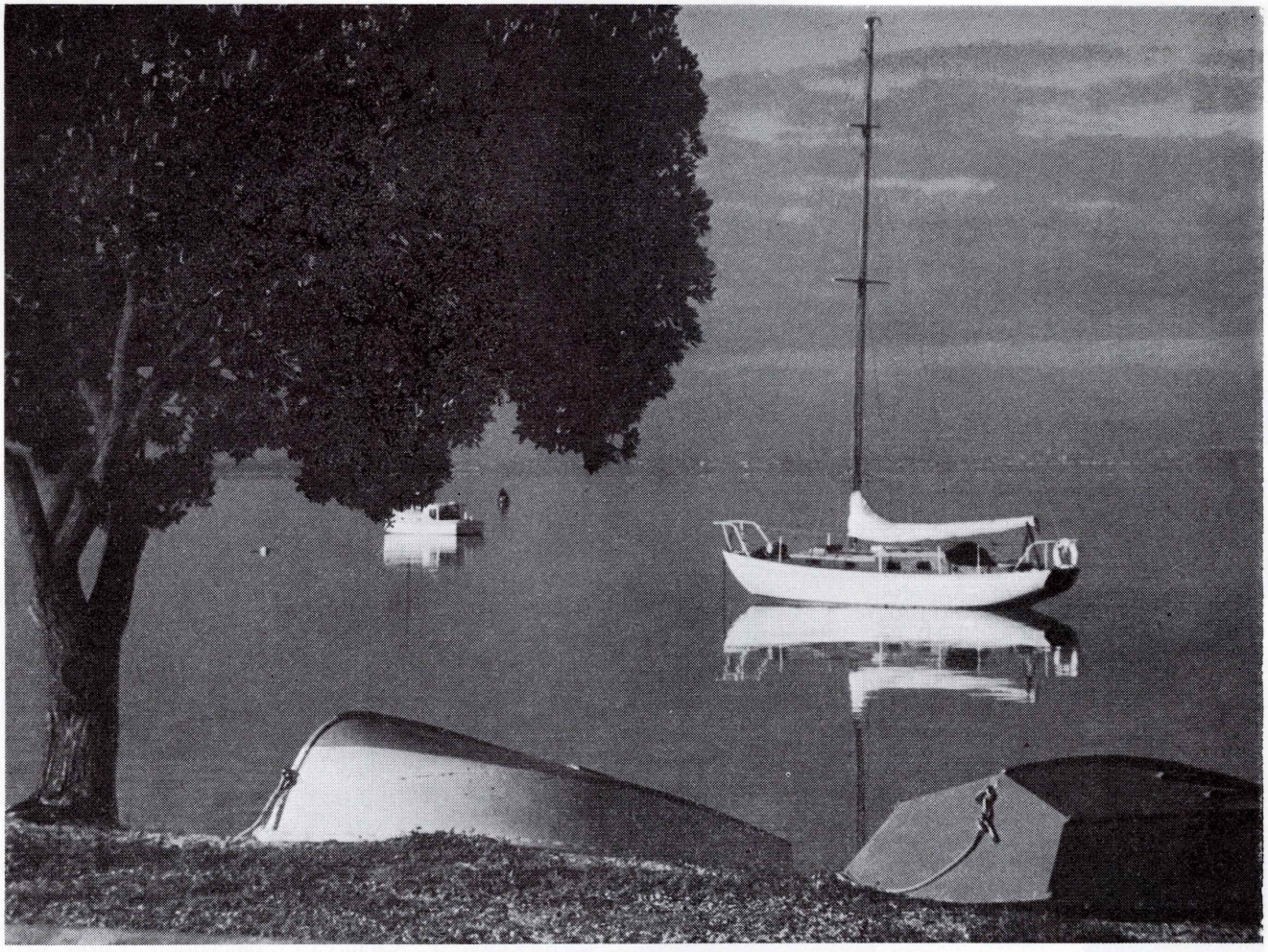
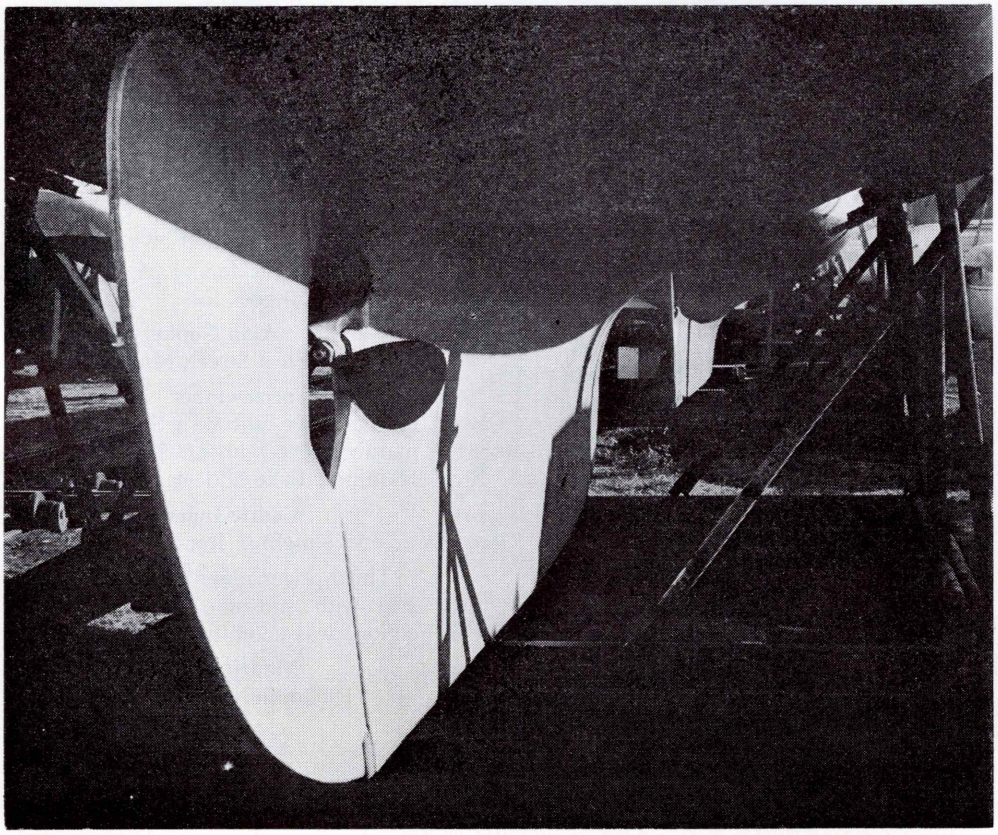




ROYAL AKARANA Y.C. PHOTO COMPETITION PRIZEWINNERS

From previous page

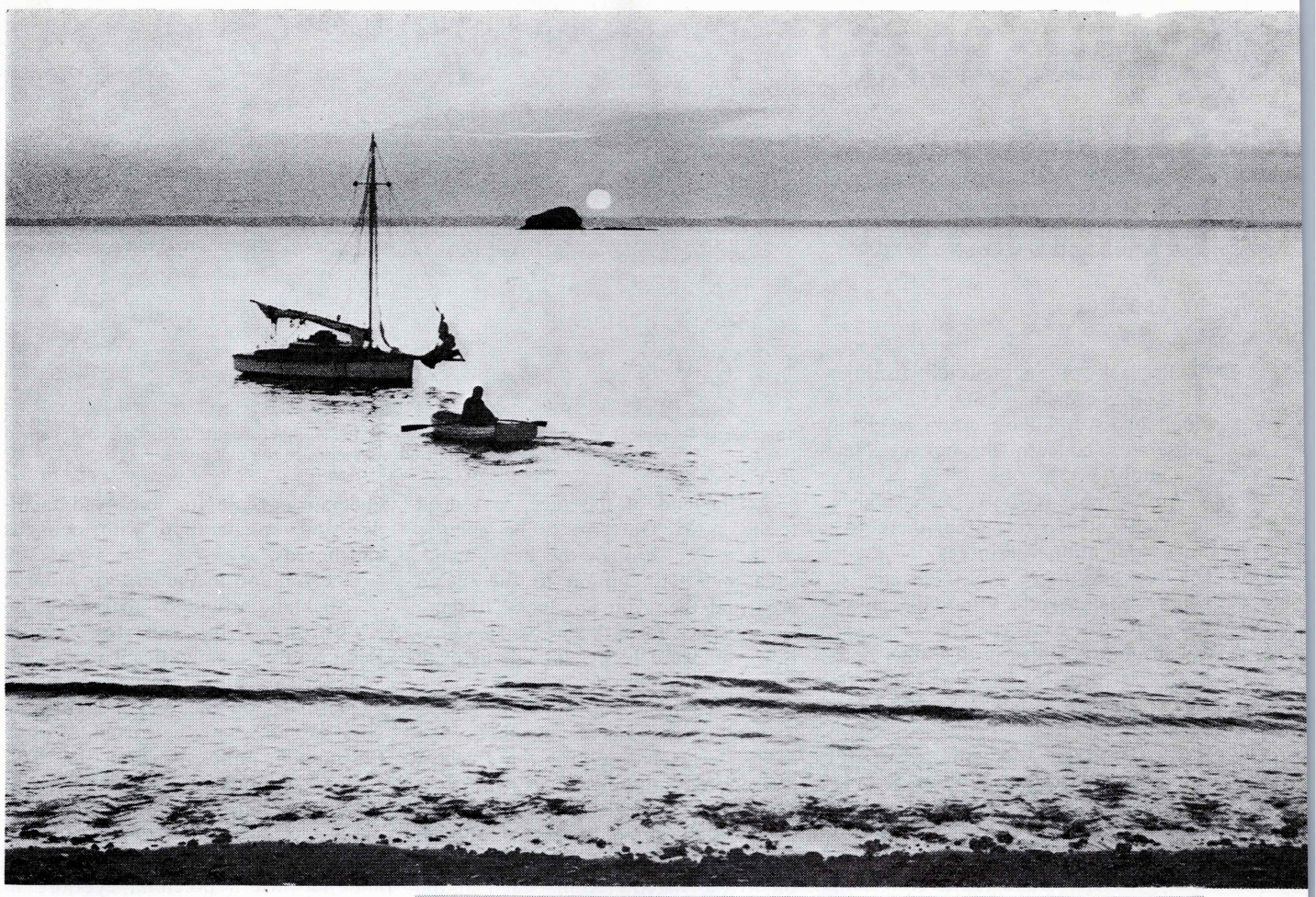
In the Miscellaneous Yachting class, first prize ($50) went to

Paul Young,
127 Union Road, Howick

for his striking light-and-shade entry "Invitation" above.

Second prizewinner in this class ($25) was another unusual play on light, left, submitted by

Donald Baldwinson,
38 Moana Road,
Days Bay, Wellington



Third prize of $10 in the Miscellaneous Yachting class went to

Gary Underwood,
Parker Road, Oratia R.D.

for his entry "Evening at The Noises", above.

In the special Children's Competition, 11-year-old

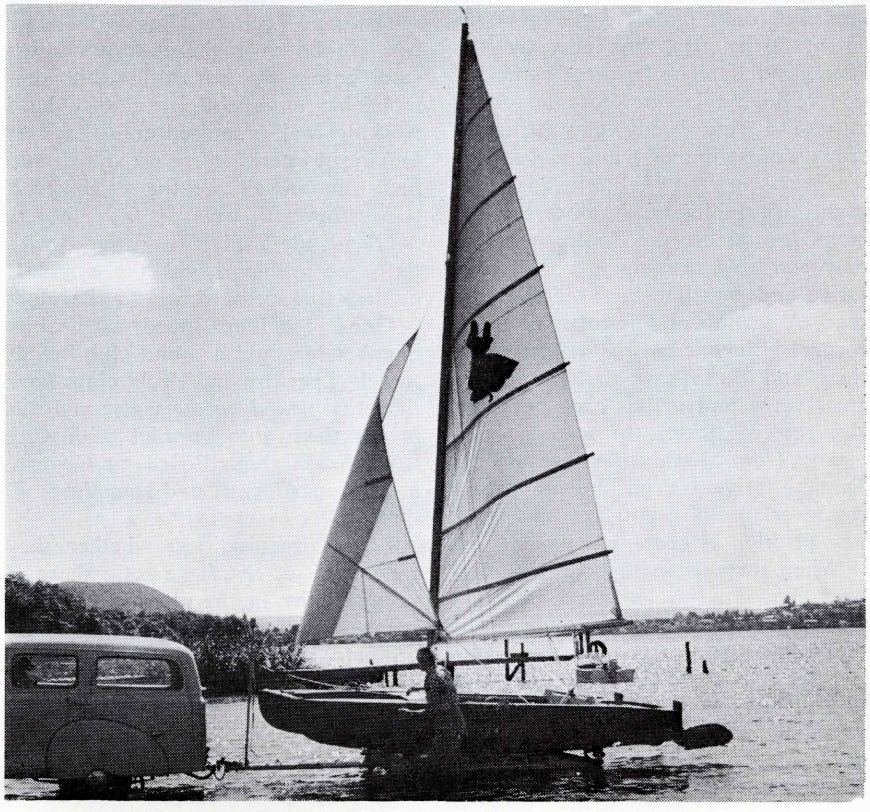
Branko Coebergh,
18 Pereika Street, Rotorua

took first prize, an Agfa Iso-Pak camera gift set, with his photograph, right, of a catamaran being trailed from the water. Branko also took an additional prize of a Click III camera with another entry, and similar prizes were awarded to

Helen Bulleyment,
43 Kahu Road, Paremata

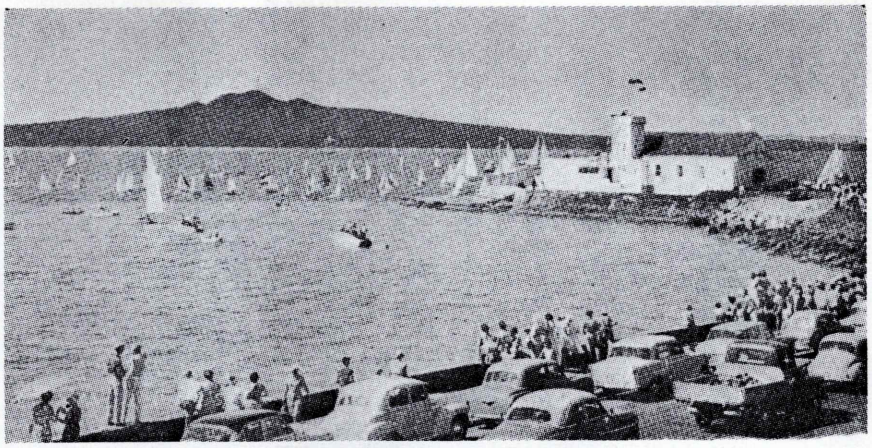
Sandra Potter,
37 Dorset Street, Westmere

Richard Potter,
37 Dorset Street, Westmere



SMALL BOAT SAILING FACILITIES

by Lee Ho



This scene is typical of a Saturday afternoon at the Tamaki Yacht Club. Cars are parked right along the waterfront on both sides of the clubhouse

THE lack of sailing club facilities for the ever increasing numbers of small boats and their crews is giving cause for concern throughout New Zealand.

An example is the eastern suburbs of Auckland. In this area, there is a huge population within easy access to the sea and there are thousands of small boats and thousands more children who are potential sailors. Yacht club facilities in this area, however, are most inadequate. There are three clubs, Tamaki Yacht Club, Kohimarama Yacht Club, and Glendowie Boating Club with permanent premises. One or two other associations use Orakei Wharf as a starting/finishing point.

Tamaki Yacht Club has one hopelessly over-crowded concrete ramp used not only by club members, to whom it belongs, but also by the general public. The frequent combination of high tide (therefore no beach to rig) a fine sunny day (bringing crowds of swimmers) and a wedding reception in the hall, means that yachts are spilling out in all directions, including on to the footpaths. The only available parking is on Tamaki Drive and cars line both sides of the road. A section of this road, near the corner, is labelled with "no parking" signs and those cars parked on the grass verge and in this area periodically receive tickets. Most days, picnickers from Mission Bay also use the Tamaki Drive for parking and their cars overlap. So where does one park? The position is becoming worse.

When there is a fresh nor'easterly, boats have to be launched into big seas pounding on to the shore. On the west side of the club the water is calm but as there is no ramp and totally inadequate space for rigging the boats, the eastern side has to be used and the boats launched into the teeth of the gale.

At the end of the race, you need to be a Mr Universe to be able to get a trailer through the heavy sand, shell and glass up on to the sealed area and then you are lucky if there is any space to park the boat — that is if you were lucky enough to even get up the ramp.

The Kohimarama Yacht Club has a band of enthusiastic members who cater extremely well for the P class, the registered number of which is near the 1000 mark. And on a Sunday morning it often looks as though every one of them is trying to crowd on to the narrow Kohi beach at the same time. Their building is the only new clubhouse in the eastern suburbs since before the war, built with commendable enterprise by a very hard working, well-organised club. Lack of facilities to park, to rig, to launch and haul out in all weathers, however, still hampers this club.

Glendowie Yacht Club is faced with the same problems with the emphasis on lack of access down to the club.

Good facilities breed a healthy membership, and a sound club breeds top class performers. Yacht clubs *have to be domiciled on the water* and this brings them into conflict with City Councils, Harbour Boards or Government Departments, and sometimes all three.

These organisations, whether they welcome it or not, have got a share of responsibility in the physical development of yachting facilities, but to co-ordinate ad hoc bodies is a test of patience and endurance. At the same time yachtsmen themselves are far too loose in their organisation and must band together in better controlled, larger numbers to present their strong case for improved facilities and co-operation with councils and boards.

One solution in the eastern suburbs of Auckland would be to extend the Waterfront Drive out to Achilles Point, so that a magnificent yacht club and perhaps public restaurant could be designed on the reef area off the point. Such a project would satisfy the public and a section of City Council administrators who hate to see further intrusion on to the existing waterfront. A well conceived project would be a national acquisition and not just a potential eye-sore to land lubbers. Tamaki Yacht Club land was originally reclaimed almost barrow by barrow by members themselves from a small rock island offshore to the waterfront road. The present building is attractive and a credit to the general scenery. Reclamation on the western side of that club could be easily undertaken to satisfy the obvious urgent yachting requirements of the club without any erosion of the public interest.

This article points out the deficiencies of small boat facilities in one area, which is fairly typical throughout N.Z. The clubs themselves are only too well aware of these problems and all are working towards major improvements under exceptionally frustrating circumstances, but progress is far too slow and too far behind growth. It will take vigorous, enlightened administration by the yachting fraternity, who first must make certain their own house is not too fragmented into small, powerless groups, to achieve facilities comparable with the numbers who take part in this wonderful sport.

TO many, lack of capital makes ownership of a good boat impossible, and there are even those who could pay for a craft but prefer to hire. After all, only 32% of the world's tanker fleet is owned by the oil companies, the balance being chartered for long periods from independent owners.

Surveys show that the boat owner uses his craft for a total of only eight weeks out of 52, spending 10-14 days on the yearly cruise, the remainder of his sea time being taken by weekend sailing and the odd sunny days.

When you consider that the capital outlay for a basic craft able to sleep, say, four people and hold the necessary stores for at least one week, will not be less than $2,500, you may think that your yearly holiday is in the jet set class. Of course, we know that once the craft has been bought, the investment is usually spread over many years, but at the same time consider that the longer the craft is kept, the steeper grows the maintenance bill. One side benefit of being the owner of any boat is that you can spend a lot of time out of doors breathing lots of fresh air in the long winter months instead of growing fat indoors reading books on boating sitting by a warm fire.

To sum up, charter saves you money in capital outlay, yearly maintenance charges and replacement of worn or lost gear. So, if you have decided that owning is too expensive, the next move is to find a boat owner who will let you have the boat you want when you want it for love or money. Some men are lucky in being friendly with owners who trust them enough to take the craft away without the owner. This approach can have astonishing results if due care is not taken.

Rude words

If the owner lends the craft, then the borrower should be careful not to break up the boat or the friendship. The former is covered by the owner's insurance policy, the latter could result from the borrower's desire to improve the ship. If the engine controls are all back to front, if "close" on a gate valve means "open", don't put matters right, it will only lead to rude words from the owner when he next uses his ship, marches into another craft doing 10 knots backwards or sinks like a stone to the bottom as he flushes the toilet.

If the owner does charge you even one dollar for the use of a ship or takes any valuable consideration before the cruise begins, then under the Insurance Institute's Yachts clause (paragraph 10) the vessel is not insured at all while you are on board nor is damage to other vessels covered.

The owner must apply to his company for a waiver of paragraph 10 and pay any extra premium. At the same time, the owner should increase his third party insurance (paragraph 17-18) to at least $40,000 as the borrower is not as familiar with the craft as the owner and therefore is more likely to damage other (expensive) craft or even people.

When you have returned from your cruise and you hand back the craft to the owner, please make some solid gesture of thanks. Don't leave a dozen of beer on board and expect the owner

IF YOU CAN'T BUY...

BORROW !

SAYS MURRAY KNIGHT

to be drunk with joy. Don't even give him joy — give him a new compass or rope, something that will help to defray some of the wear and tear you have taken out of the ship.

By this time the thinking man may decide that it is simpler to charter a boat from one of the companies that advertise in the yachting magazines — and he would be right. You then deal with men who are accustomed to all sorts of customers, few of whom leave the boat as they would like to find it. The small number of charter boats offered can be put down to unthinking damage by the charterer and the prevailing low rates paid.

A good 28-30 foot keeler or launch that is suitable for charter work and will stand survey by the Marine Department will cost no less than $7,000 today. Yearly upkeep of that boat and assuming an amortisation rate of 20 years is not less than $550. The rates asked vary from port to port. In Auckland the average is $75.00 per week for a keeler and $100 for a 32-foot motor launch. The season is quite short and you will see that by charging these rates, it is only possible to cover costs by working the boats from October to April and hoping that they will be used at least three-quarters of that time.

When you consider that a yachting holiday is a unique form of sport, travel and accommodation combined, you will see we are lucky in being able to hire at all in these waters. Remember that no standard charter boat exists. The standard of the boat is the owner's standard and boats offered can vary from good to deathtraps.

Need not worry

All boats offered for hire in this country must by law be surveyed by the Marine Department, but not all hirecraft owners have taken notice of the fact. If the boat offered you has been passed as fit by the Marine Department, then you need not worry. The craft will be, if nothing else, constructively sound and will carry lifesaving gear to support all the passengers in an emergency.

Ask the company or the owner first to see the Certificate of Survey and then the insurance policy covering the ship. Then find out what you get for your money. Small craft are usually bare boat charters and you will be expected to supply all food, fuel and personal gear. Some companies offer more than the minimum however and by careful choice of boat you may find that all you have to carry on board is food for your cruise. All this should be made clear in the charter party agreement. This may be a carefully drawn legal printed document or a handwritten note. The form is of no importance in law. The contents are the contract and are important. Don't, whatever you do, rely on a gentlemen's agreement. Verbal promises are too easily rejected by one party or the other. The agreement should cover at least these points:—

The name of the ship and company; names of the charterer and next of kin (they would be responsible for any search if made); cost and duration of the charter party; time and place of arrival and departure; penalties (if any) for late return and conversely any refund (if any) for early return; a full inventory and division of responsibility for gear lost or damaged during the duration of the charter party; procedure if weatherbound in a far port and unable to return safely

Continued over

IF YOU CAN'T BUY BORROW

From previous page

on time (most firms will be delighted if you are late but safe).

If you raise any point not in the Agreement and the owner agrees to this point, put these conditions or amendment on both copies. Do not rely on the owner's word. This is especially important with boats as the ownership of any craft may literally change in mid-stream.

The charter party will give you the cruising limits beyond which insurance cover lapses. Do not try and cover ground outside the stated limits. Once again these limits vary from one company to another. As the insurance company concerned have no idea of your capacities, the owner should choose his ground with care and not venture out into "deep waters" in which he may feel unsafe.

Once you have disposed of the paper work, spend some time with the owner or his representative on the ship and try every piece of gear in his presence. Start the motor, hoist all the sails if the wind allows, brew up on the stove and put on the lights. Do not assume that if the gear is there, it works. It may not be so and repairs and replacements may not be possible at your next port. Most of us are too eager to set sail to spend any time at the moorings, but it can be time well spent.

The same procedure applies when you return. If you leave the ship without formally handing over to the company, the latter could blame you for any damage that may occur to the ship in your absence. This hand-over will allow you to tell the owner how you like or dislike his boat. If you have praise or criticism, let both be heard — in time, the boats and the owner will improve the service to you, the land-bound yachtsman.

CARBON FIBRE — THE NEXT HULL MATERIAL ?

FIFTY years ago racing craft had one thing in common: they were all built of wood. Design theory and construction techniques outstripped all progress in the materials field and only in the comparatively recent history of racing have science and industry combined to produce the rapid changes in fashion from clinker to steel, to aluminium, to fibreglass and now to combinations of foam and fibreglass, plywood and concrete.

But what comes next? Is the progression from wood to metals and from metals to plastics likely to reverse? Is it back to aluminium's successor and to synthesised products of the timber industry? Or is there an alternative?

Little under a year ago a Ford GT40 streaked in to win the Le Mans Grand Prix with a body shell weighing just 75 lb — a fact which created some small stir in the world of motoring but which was probably barely noticed by the majority of yachtsmen. In fact, for yacht designers as much as for the car industry, victory at Le Mans was a significant step into the age of a new lightweight material of phenomenal strength and rigidity: carbon fibre.

Summarising an article by D. M. Peters, assistant editor of "Design Engineering", the October 1968 issue of "Flight" magazine said: "It is impossible at this point to foresee the almost limitless future application of this 'new steel'. As with glass-reinforced plastics and earlier advanced materials, carbon-fibre reinforced plastics will initially be used by the aerospace industry. However it is already possible to see important applications in chemical engineering, as a bearing material, in thermoplastic applications, for competition yachts and racing craft, in racing cars, for radar scanner and masts, in submarines and underwater research craft.

Growth in fibreglass applications began the search for a reinforcing fibre that would have greater rigidity without increase in weight or loss of any of the other properties which give fibreglass a pull over metals and wood. The materials with the necessary characteristics are the oxides, nitrides, borides, carbides, boron and carbon and it is on the last two that most of the research work has been done.

BY DAVID PARDON

Generally speaking a carbon-fibre reinforced plastic is approximately four times as strong as steel and a fraction of the weight (the Ford GT40 car body would have weighed 500 lb in steel and 140 lb in fibreglass). Its outstanding advantages over fibreglass are its greater tensile strength and, even more important, its rigidity, or "stiffness".

Apart from its racing car application, carbon fibre is currently in service in the form of "Hyfil" turbo-fan blades in the Rolls-Royce RB211 jet engine ("Hyfil" is the trade name of Rolls-Royce who, along with the Royal Aircraft Establishment, Farnborough, have been mainly responsible for the development work). These blades are laminated and pressure-cured, but as applied to car bodies or yacht hulls the material can be moulded in exactly the same way as fibreglass, the carbon fibres forming a random mat in a polyester resin matrix.

What are its drawbacks? In some fields, of course, the low resistance of the plastic matrix to temperatures higher than about 160 deg. C imposes limitations (though this temperature level can be raised to around 1000 deg. C by using a metal or ceramic matrix), but as applied to yacht hulls work at present is inhibited by availability and cost. The fibres alone are currently in the region of $200-$250 per lb though it is estimated that this will fall to around $10 a lb within 10 years.

Scientists at the Royal Aircraft Establishment have described the new material as "one of the most far-reaching inventions of the century" while an American, General B. F. Schriever, goes far beyond in describing it as opening the door to "the greatest single advance in the materials field for the last three thousand years".

Certainly for the yacht designer it seems to offer exciting possibilities and it will be interesting to see who takes the first step.

Geoff Smale explains

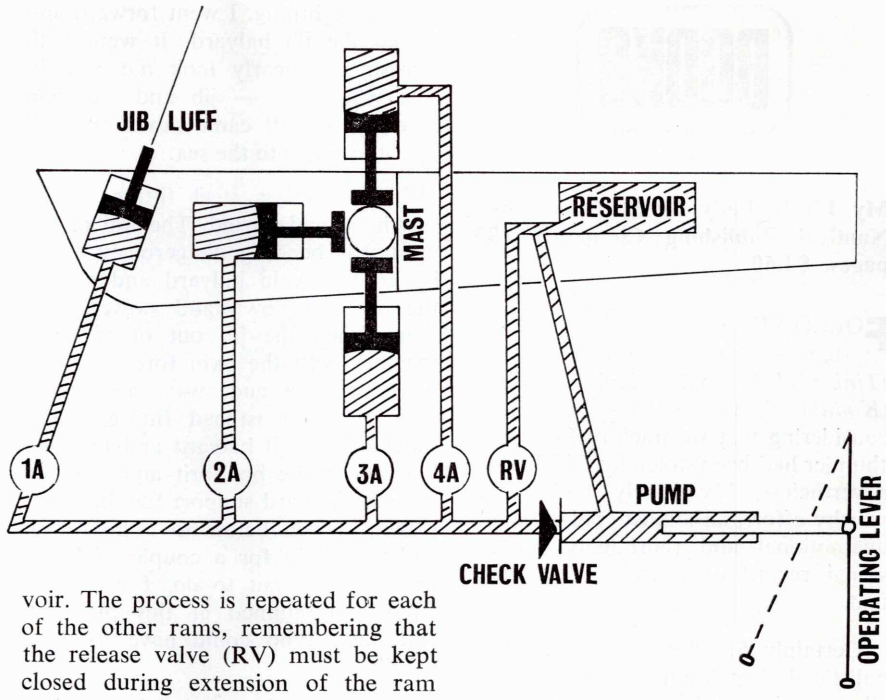
THE PROS AND CONS OF HYDRAULICS

HYDRAULIC "rig-shifters" are in the news again following Auckland phototgrapher Len Anderson's National Javelin success in *Jim Bean,* sporting a much-publicised system of rams for moving the mast athwarts or fore and aft. A similar system was a feature of Geoff Smale's Olympic Flying Dutchman *Takapuna,* which has since been sold in America. It was *Takapuna's* hydraulics that Geoff explained for SEA SPRAY.

"All hydraulic systems, whether for a car clutch, brakes, a bulldozer blade or a boat, are basically the same: a small force is applied at one point, in this case by hand, and transformed via oil from a small master pump through pipes, into a considerably greater force at the point, or points, at which it is required.

"*Takapuna* had four rams applying the power needed to alter the position of (1) the jib luff, (2) the mast fore and aft and (3 and 4) the mast port and starboard. In the case of the jib luff, the rams gave about four inches movement while mast movement at deck height was about $\frac{5}{8}$ in fore and aft and $\frac{3}{8}$ in athwarts. Operation, hydraulically speaking, is quite simple. By working the hand lever attached to a master pump oil is forced through pressure pipe to one of the rams. These are selected by opening the appropriate valve (1A, 2A, 3A or 4A) while keeping the remainder closed. With the ram advanced to the required position, the valve is closed and the position thus held while the next ram is operated in the same way. By including an oil reservoir at atmospheric pressure, each of the four (or as many as required) rams can be operated independently of the others.

"To return the ram, its valve, plus the release valve (RV) is opened and normal pressures operating against the ram will return the oil to the reservoir. The process is repeated for each of the other rams, remembering that the release valve (RV) must be kept closed during extension of the ram and opened for retraction.



"Unless some system of springs is added, normal pressures working on the rig must be relied on to return the rams — and therein lies one of the snags: in light weather the rams can be slow returning to their retracted position.

"As a means of controlling the often large forces needed to shift the mast, jib luff or any other part of the rig in heavy weather, by a very small force — one hand — the system is easy to operate, effective and free from the frictional problems of mechanical systems. But it has disadvantages and it is because these outweigh the advantages that we are discarding hydraulics in our new boat *Takatu.*

"Possibly the greatest disadvantage is the 'non-repeatability' of settings. An ideal position for each ram may be found for a certain wind speed and other conditions . . . but, because there is no simple way of marking the rams and because an infinitessimal movement of the rams can mean a very much greater movement at the point of power application, it is quite impossible to record or return to those same settings when similar conditions are encountered again.

"This, of course, could be overcome by installing some form of finely-calibrated gauge, but when you are pounding around a Javelin or a Dutchman in a blow, there's hardly room to be reading microscopic calibrations!

"On a keeler it could be different — and it is on keelers that the hydraulic system may offer the greatest advantages. There would be room to install all the pipes, pumps and so on, room to fit gauges and room as well as time, in which to take the necessary readings and to translate a predetermined set of readings into action.

"There is, of course, quite a bit of equipment involved and this takes room — and weight. It also takes money and a system such as we had on *Takapuna,* which involved aluminium anodised cylinders, neoprene seals, mineral oil, stainless and brass pump, nylon tube, etc., could be costly.

"To operate the system also really needs a sound knowledge of mechanics and hydraulics. It must be accurate and it must be leak-proof: even the smallest leak would be disastrous. It may not really be suitable for the average yachtie."

So for Geoff Smale it's back to a mechanical system and worth noting that his new boat *Takatu* will have provision for 13 rig adjustments: jib luff (1), mast at deck height (3), sidestays (2), diamond control (1), Cunningham holes jib and mainsail (3), kicker (1) and jib sheet block raise and lower (2).

BOOKS

My Lively Lady by Sir Alec Rose. Nautical Publishing Company. 193 pages. $4.60.

FOLLOWING in the literary footsteps of such as Robert Manry (*Tinkerbelle*) and Kenichi Horie (*Koduku*) is no easy task, especially considering that so much of Sir Alec's thunder had been stolen by Chichester; nevertheless, My Lively Lady is a worthy effort, an almost cold-blooded, unemotional and thoroughly professional record of a truly remarkable feat.

Certainly Sir Alec lacks the journalistic skill of Manry, who was, after all, a professional newspaperman, but as a yachtsman and clinical recorder of the cold, hard facts of solo circumnavigation he more than compensates. This is a yachtsman's book, by a dedicated yachtsman for yachtsmen. It is no adventure story — indeed Sir Alec's lack of histrionics and enormous talent for understatement is such that a page opened at random might suggest that he was rounding Rangitoto in a mild easterly rather than the Horn in a Force 10 storm; "I peeled some potatoes and carrots and boiled them for supper with a tin of corned beef. . . ." seems to the author to be a far more revealing statement than the mention, more or less in passing, that he did it while the wind was blowing Force 12 and smashing bits and pieces off the deck. The uninitiated might conclude that sailing a 36 - footer single - handed around the world was the sort of thing any yachtsman could do if he had a few months to spare; but the yachtie, interpreting the technicalities and savouring the struggle day after day, week after week, against gigantic seas and an almost ceaseless gale, will appreciate that here indeed is a most unusual man.

"By midnight of January 24th/25th the wind was freshening from the north. We were getting along well, but it increased to force 7 and I judged it time to reduce sail again. It was pitch dark, heavy rain and brilliant lightning. I went forward and let go the jib halyard. It went with a rush and nearly took me with it. The whole lot — jib and the twin forestays — all came down and fell over the side into the sea.

"The stainless steel fitting at the masthead had parted. The top of the mast was bending dangerously and I let go the main halyard and clawed the mainsail down and stowed it. I then fished the jib out of the sea, together with the twin forestays, and there, on the end, was the broken tang of the masthead fitting. I unshackled the jib halyard and fastened it down to the bowsprit and winched it up as forward support for the mast. I then retired below to a hot drink and turned in for a couple of hours to consider what to do. I was shattered and stunned at this piece of bad luck. Who could have foreseen this?"

Perhaps the outstanding message of Sir Alec's book is that with all the preparation, painstaking attention to detail and planning for emergencies that goes into such a trip, the totally unexpected invariably happens. This surely is the true test of a master yachtsman . . . not navigational skill or ability to handle a craft when things are going right, but ingenuity, a gift for improvisation, refusal to accept that the boat is done for until it splits in two, and, above all, understanding of and respect for the sea.

There is much the yachtsman can learn from Sir Alec's story. My Lively Lady is no literary masterpiece; its attention to detail, its painstaking care to mention all the trade names of the things Sir Alec used, ate, drank or was offered, to name all the people who helped, advised, visited or welcomed him before, during and after his trip, can become irritating, but they are, perhaps, an indication of the author's modesty and awareness of the part played by other people in the success of his adventure. They are easily overlooked in the pleasures of the story as a whole.

—D.P.

Heard At The Helm edited by Robert Anderson. Stanley Paul, London. 128 pages. $2.45.

Yachting is not always a serious business. Indeed, like most sports, the inherent humour of so many of its situations and characters, are a major part of its attraction. This is a brief, compact, hilarious look at just these situations and characters.

Cartoons by Ray Chesterton play a major part in the book and make it the sort of reading that can be picked up and put down in spare moments without spoiling the pleasure. Its tales vary from the yachtie who took his wife on a disastrous honeymoon on the Norfolk Broads to the woman member of the crew who was left behind to make room in the car for two crates of beer which were regarded as essential victualling supplies on board.

Although essentially English-week-end-yachtsman material, New Zealanders will have no trouble appreciating the humour. In any case, yachties are much the same the world over.

—D. P.

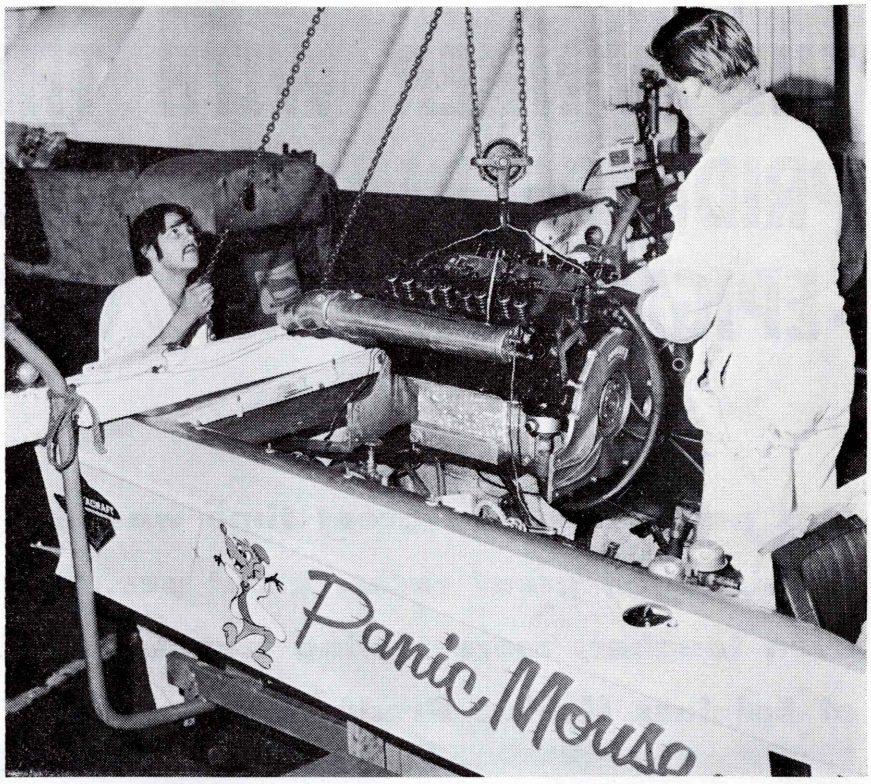
Paul Elvstrom Explains the Yacht Racing Rules. Richard Creagh-Osborne and Partners. 98 pages. $2.10.

The fourth impression, revised and re-set, of Elvstrom's neat little publication dealing with all aspects of yachting rules. A new feature is a list of official IYRU appeals cases, together with the rules involved. Copies of the appeals can be obtained from the IYRU.

The book, bound as usual in a waterproof plastic cover, includes the familiar plastic model set with which the yachtsman can work out problems, and the text is arranged so that each rule has its own explanations and drawings immediately following it and one rule is completed before the next is tackled. Clarity is improved by printing one of the boats in red, this being the boat which is either wrong, potentially wrong or in the worst position. The book is divided into six parts, Definitions, Management of Races, General Requirements, Sailing Rules When Yachts Meet, Other Sailing Rules, and Protests, Disqualifications and Appeals.

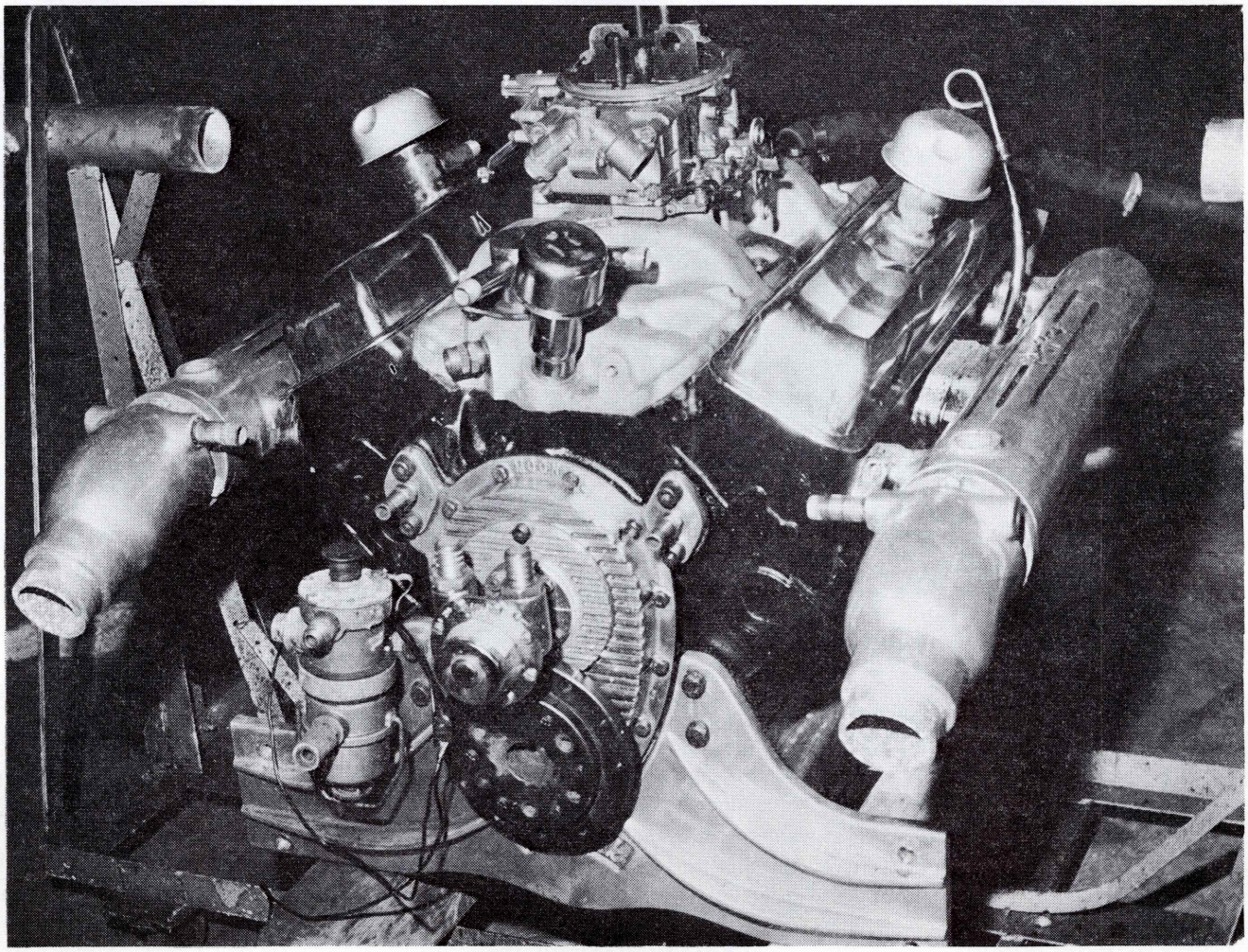
—D. P.

MORE 'GO' FOR THE MOUSE



PANIC MOUSE, owned by Mangere's Willie and Dennis Coughey, has been stripped of her engine following her record 1hr 54min win in the Auckland Power Boat 100-mile race in April.

Auckland engineer Kevin Lamb, who looks after the 327cu in Chevrolet power pack, is working on improvements for next season. "We learned a lot from that win," says Kevin. "Now we have an idea that will boost the *Mouse's* power and shoot her across the water even faster next time out."



THE WINNER WITH THE PRIDE-OF-PLACE BOATS -EPIGLASS MARINE PRODUCTS

This past summer a great time was had by all. Great boats, great races, great performances, and even tougher, more testing tryouts for the quality of Epiglass Marine Products.

JACQUI HUNTER No. 7

In this year's EPIGLASS 40, overall winner was Jacqui Hunter. She was powered by an 80 hp Mercury Outboard and driven by Neil McCorkindale. There were 52 entries in this race, yet results were available in 20 seconds. A computer took only this time to do what was the equivalent of 200 man hours of calculations.

Jacqui Hunter uses many proven EPIGLASS products in her construction. She is the fifth boat that Neil McCorkindale has been involved in building in the last four years, and in which EPIGLASS products have been heavily relied on, with complete satisfaction.

PATHFINDER

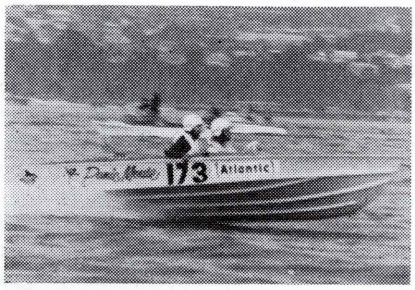
Second year in succession, first to finish in the EPIGLASS 40 was I. Reeves of Rotorua in Pathfinder V. Her 400 hp inboard Chevrolet shot her through the course in the record time of 47m 55s, which is nearly 2 mph faster than last year.

PATHFINDER V uses EPIGLASS products extensively, such as EPIGLASS 90 fibreglass to strengthen, protect and beautify the hull, and EPIVAR for a tough, durable gleam to her brightwork.

MYSTIC MISS

In the Atlantic 100, Mystic Miss with three 125 hp Mercury outboards, and driven by W. Stevenson, was leading boat for nearly 60 miles before Panic Mouse overtook her. Earlier, she had won on Wellington harbour.

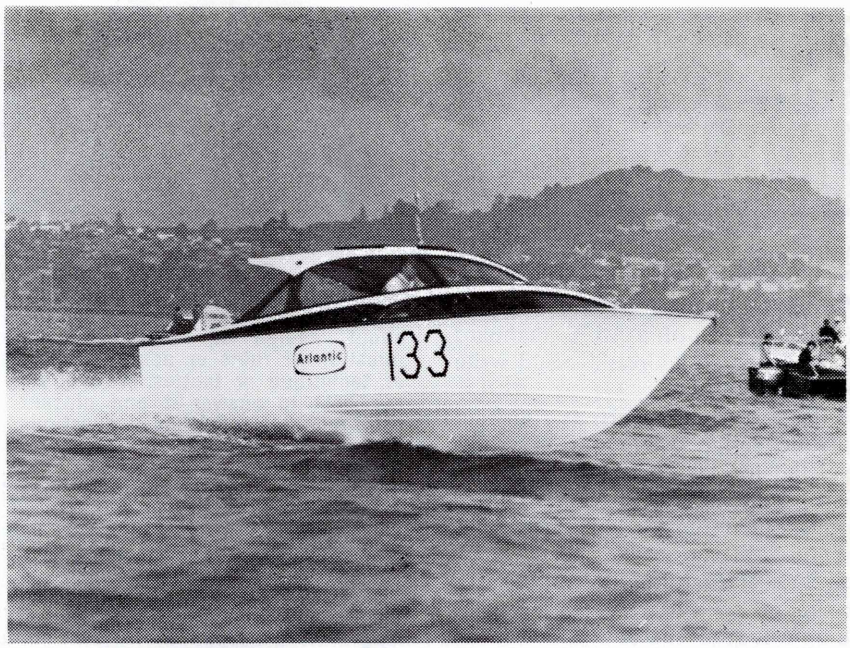
EPIGLASS products have been used throughout the construction of Mystic Miss, and her much admired finish has been achieved with EPIGLASS Polyurethane Reaction Lacquer Tiri Yellow.



PANIC MOUSE

Just as noticeable as her performance in the Atlantic 100 was Panic Mouse's distinctive signature colour of EPIGLASS reactions lacquer Tiri Yellow.

In spite of seaweed in the propeller and a collision with a seagull that tore away part of the deck, this prototype 17 ft Vistacraft took line honours. With the Coughey brothers driving and a 300 hp Chevrolet inboard doing the propelling, Panic Mouse did the 104.5 mile course at a new record average speed of 54.96 mph.



CLIPPER OUTLAW

Overall winner of the Atlantic 100 was Clipper Outlaw, a Mason Marine built 24 ft inboard-outboard powered by a Jaguar motor and driven by T. H. Manville.

The Jaguar motor is worth noting. Only six cylinders, yet it was pushing out around 300 bhp. T. H. Manville is a fan for the Jag. motor against the big bangers. He maintains and has in fact proved that the Jaguar can be tuned into a mighty powerful yet very efficient power unit. As well, the Jaguar's very robust construction is a great aid to reliability.

EPIGLASS glues and fillers are used throughout Clipper Outlaw. EPIGLASS skinning resins are also used for bonding. T. H. Manville describes Clipper Outlaw as a very firm, stiff boat.

Third overall in the same boat was the Mason Marine built Clipper Chrysler. EPIGLASS products are also at the heart of her construction.

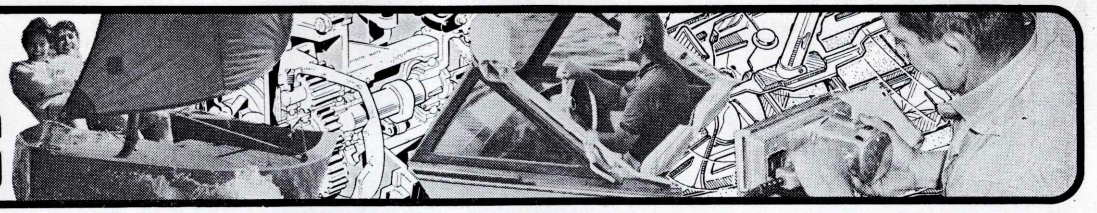
Tested in the Laboratory - Proven in the Water

EPIGLASS

MARINE PRODUCTS

Manufactured exclusively in New Zealand by Consolidated Chemicals Ltd. Auckland, Wellington, Christchurch, Dunedin, Sydney

ASK THE EXPERTS



Hydrofoils

COULD you give me any information on hydrofoils suitable for lifting the bow of a 16 ft outboard runabout, or an address I could write to on this subject?

I have just built a 16 ft runabout gullwing design where the bottom is dead flat for 11 ft from the stern. As the conventional hull is gently curved throughout its length, giving the bow a natural lift at speed, I believe my hull has no natural lift and so the maximum speed, with two persons sitting 6 ft from the bow and a 55 hp outboard with maximum tilt, is only 25 mph at 5300 rpm.

Any information on hydrofoils would be appreciated.

— M. Parish, Hamilton

• *We cannot suggest any source of supply for these type of units, although we have seen illustrations of standard units produced overseas.*

We suggest that the trim of your boat is not necessarily a fault with the design. You state that the bottom of the boat is dead flat for 11 ft from the stern. We do not know whether you mean flat in both directions, like a billiard table, or whether you mean straight fore and aft with a vee in the bottom. In either case the hull should plane at an angle of two to three degrees as a true planing hull must have the fore and aft lines dead straight to be efficient. Any planing hull with a curve in the bottom must sacrifice performance for general purposes and any curve is usually a fault. To bring the bow of your boat up it would be necessary to alter the angle of your outboard so that the propeller shaft is nearly horizontal or, if anything, kicking up towards the surface of the water; i.e. with the drive shaft tilting forward at the top. When you do these adjustments try only small amounts at a time, as the result can sometimes be fairly drastic.

The other thing that would improve your performance is shifting weights aft, although you do not say how heavy your boat is and this could be the main reason for a drop in speed such as you are experiencing.

Ask The Experts is Sea Spray's monthly column for people with problems. Power or sail, keeler or runabout, design or maintenance, a question of rules or administration, of technique or tactics, we will do our best to answer it and present each month a selection of questions and answers on a wide variety of topics.

If you have a query, write or type as briefly and as clearly as possible and address it to: Ask The Experts, Sea Spray, Box 793, Auckland.

In the early days experiments were made with a speedboat by putting a small hydrofoil with a forward fin in an effort to lift the bow. It was found that the effect was nil and that it would require quite a large area of foil surface to achieve the result. The more effective way of raising the nose is by fitting a cavitation plate so that the after end of it is kicked up slightly. The amount of kick would only be in the order of 1/16 to ⅛ in to provide drastic results. This should only be attempted if the changing of the motor angle does not achieve the desired result.

Your speed, of course, could be affected by the propeller you are swinging and unless you are swinging the standard propeller as fitted to the motor you may be losing performance here. You may have a low pitched ski prop on, which would drop top speed but give ample towing power.

Dinghy name

We would like to register our OK Dinghy with the local club, but my husband, sons and daughters all have different ideas on a name. At present *Hokus Pokus* is a firm favourite, but the matter is a difficult one to settle happily. Have you a register or any suggestions?

— Mrs K. W. Bolwell, Nelson

• *We do not keep a yachting register here. The main register for Auckland is kept by the Auckland Yachting Association, P.O. Box 1810, Auckland, or you could try the secretary of the OK Dinghy Association, Mrs B. E. Roberts, 61 Anzac St, Auckland 9.*

Gas turbines

Could you please supply us with some information regarding gas turbines or failing your resources put us in contact with the likely people.

First of all our position is this, having sold our motor sailer we bought a partly completed deep vee hull, twenty-five feet overall and nine feet beam. She appears to be mostly deep vee and therefore will need a powerful engine, probably two. Petrol is out for this reason — any high powered petrol motor will have a high fuel consumption, but the distances in this part of the world between refuelling wharves, means we run out of petrol in inconvenient places!

Diesel engines have a higher power-weight ratio. Reciprocating steam engines need more complications and gear than the craft can handle.

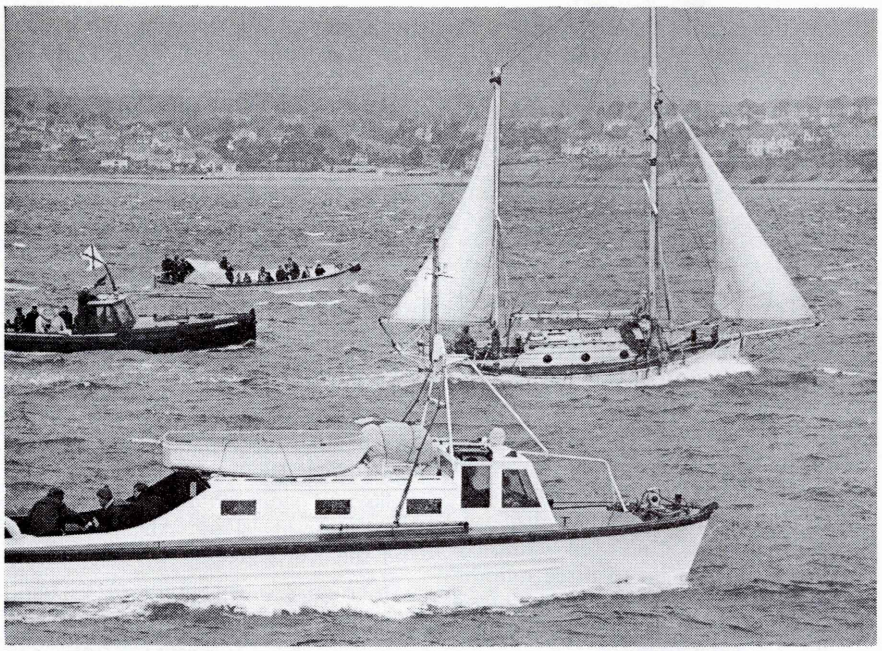
You may think us utter drips for acquiring this white elephant. However, out of this collection I've mentioned I'm sure there is a compromise.

Could you give us an idea of gas turbines, or if a turbine is feasible in twenty-five feet of deep vee and, if so, whether the price makes the scheme impossible?

— Rob Menzies, Pelorus Sound, Marlborough.

• *Gas turbine engines are now widely used for marine propulsion and have an exciting future in this field. The mighty Thunderbird of American power boat ocean racing fame uses two ST6 gas turbine engines produced by United Aircraft of Canada. Almost all the navies of the world use gas turbine engines in their high speed craft, the navy of the U.S.S.R. has 400 of one particular type all powered by gas turbines, so we can expect further advances in this field.*

The ST6 engine would certainly fit your requirements, but the price is prohibitive and maintenance would be a problem. We feel that you should make a reappraisal of diesel power as the power-weight ratio has improved very largely in modern units.



Robin Knox-Johnson crosses the finishing line in his 32 ft ketch Suhaili after his 312-day single-handed voyage around the world. He was the first man to circumnavigate the world non-stop, single-handed, and thus won the Sunday Times Golden Globe Trophy. Right, he steps ashore for the first time in 312 days

OCEAN CURRENTS

Voortrekker to race in England

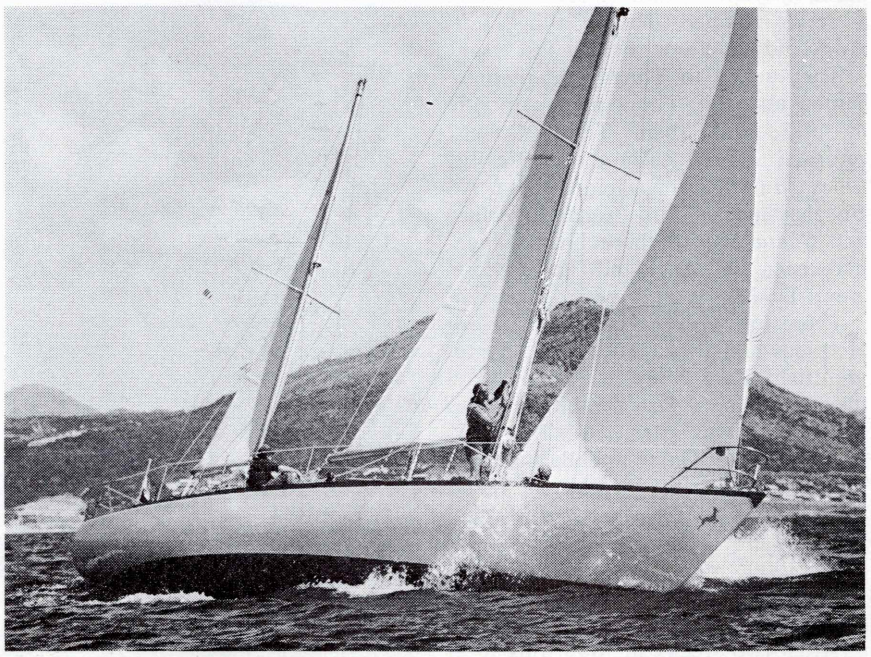
THERE is keen enthusiasm among South African offshore yachtsmen to break into the international ocean racing scene. Much of this determination stems from last years solo Transatlantic race in which Bruce Dalling took second place sailing the South African entry *Voortrekker*.

The Cruising Association and the Ocean Racing Trust of South Africa are working together on an ambitious programme spanning the next few years. This is both a building and crew-training project and is aimed at developing an effective fleet of yachts with the men to sail them. The focus of their efforts is immediately on the 1971 Trans South Atlantic Race to be sailed from Cape Town to Rio de Janeiro, but an entry for the 1972 single-handed Transatlantic race and eventually an Admiral's Cup team are two of the major aims.

The South African Ocean Racing Trust, who are the owners of *Voortrekker*, have had the 50 ft ketch refitted, she is now able to sleep a crew of six. She is to be shipped over to England to compete in this year's RORC programme. Two crews have been selected to sail her and each team will have her for half the season. This is basically a training exercise to give a taste of international competition.

Skippering one crew is Ivor Jamison of the Royal Cape Yacht Club of Cape Town. He has an impressive record in offshore racing on the South African coast and is also a very able 30 sq metre helmsman. Bobby

Voortrekker, the 50 ft ketch which took second place in the solo Transatlantic race last year, has been refitted and is to be shipped to England for this year's RORC programme



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OCEAN CURRENTS

From previous page

Bongers heads the second crew. He sails at the Zeekoe Vlei Yacht Club a few miles from Cape Town. He has done an impressive amount of dinghy sailing and has held five South African championships. He has also represented the country in the Flying Dutchman World championship and has thousands of miles of blue water cruising behind him. A boatbuilder by profession, he was one of the crew of three that sailed *Voortrekker* from Cape Town to Plymouth for the start of the solo Transatlantic race.

Bona Dea

Latest news of the *Bona Dea* (last mentioned in the August 1968 issue of SEA SPRAY) is that they have reached Cape Town where they intended to slip the boat and complete further preparations for the trip across the Atlantic to Rio de Janiero. From there they plan to sail to the West Indies, Carribean, Miami and then to England.

Korora

Korora, Dr M. A. Watson's 33 ft Mason designed ketch, which had her maiden voyage in the 1967 Whangarei-Noumea race, is now in Durban.

Dr Watson sold his practice in Taupo and with his wife Robin, three daughters — Rebecca (eight years), Sarah (seven), Judith (three) — and a crew member, Tony Collins, left Auckland on Good Friday last year.

They sailed to Tonga and then to Samoa and Fiji. They spent a month in Fiji and then Tony Collins returned to New Zealand, and Neville Lilley from Tauranga joined them. At Fiji they met up with *Procax, Bacchus* and *Santa Maria,* three boats which had been in Auckland and whose crews Dr Mason had met.

From Fiji *Korora* sailed to the New Hebrides and they visited Vila, Santo and then Port Moresby. From here they sailed with *Procax* and *Bacchus* through Torres Strait to Thursday Island, Dili in Timor and Bali, where they stayed for two weeks.

Christmas Island was the next stop and they crossed from there to Mauritius (3000 miles) in three weeks. During this time they kept in radio contact with the other two yachts.

After two weeks in Mauritius they had a slow 17-day trip to Durban where they arrived on December 7. Since then Dr Mason and his wife have been working and travelling around in South Africa and the girls have been attending school. They hope to leave for Capetown in November, spend a month there, and then go on to England.

Tormentor II

Keep an eye open for *Tormentor II,* claimed to be the largest trimaran so far built in Canada and currently on a globe-circling cruise. Owned by Bob and Ginnie Higman and designed by Lauren Williams, *Tormentor II* is a 48-footer built of fibreglass on wood with a 38 ft waterline length, 22 ft overall beam and 18,000 lb displacement. She was built for extensive ocean cruising of up to three months at sea and, with berths for eight, is said to be "lavishly equipped for comfort and safety".

Red Gurnet

Recent arrivals in Auckland included the *Red Gurnet,* a 34 ft Buchanan sloop bringing Dale and Gair Frankum from Powell River, British Columbia.

Gair Frankum is the daughter of Mr and Mrs Don McRae of Te Papapa, and has been living in Canada with her Canadian husband for the last five and a half years. They bought *Red Gurnet* in 1967 when neither had any experience of sailing. After studying Mary Blewitt's "Celestial Navigation" and putting *Red Gurnet* through a 14-day shakedown cruise around Vancouver Island, they set out for New Zealand on August 11, 1968, reaching Whangarei on April 29. *Red Gurnet* carried no radio and stops en route were made at Marquesas Island, Ahe, Bora-Bora and the Kermadecs.

Red Gurnet was built in England in 1952 of English oak frame and mahogany carvel planking. She has an 8 ft beam and carries a 16 hp Coventry Victa petrol engine giving a cruising speed of 5 knots.

Red Gurnet off Vancouver Island

LETTERS TO THE EDITOR

Too much ?

Dear Sir,

I would like to note a protest through your excellent yachting monthly re the proposed mooring increases by the Auckland Harbour Board.

My own experiences in the rising costs of moorings over the years summarised as follows:

In 1925 moored off Sentinel Rd. Beach £3 10s 0d ($7.00) p.a.

In 1930 moored inside Eastern Tide Defector £6 10s 0d ($13.00) p.a.

In 1936 moored at Okahu Bay £8 10s 0d ($17.00) p.a.

Moved to Westhaven Pile moorings at £15 10s 0d ($31.00) p.a.

In 1963 granted a Marina at £65 ($130.00) p.a. which was increased to £80 ($160.00) p.a. in 1965, and now a proposed increase to $220.00.

I feel by increasing the mooring fees so substantially the small boat owner and enthusiast will eventually be priced out of the sport. A very sad day, particularly for our up and coming young yachtsmen.

"STILL AFLOAT"

Mt. Roskill.

Disappointment in Wellington power boat race

Dear Sir,

After completing six laps in the Wellington power boat race I found the picket or marker boats, together with rescue boats, withdrawn from the course. After trying to find out from a Press boat and a BP boat what was required of me, without success, I carried on towards Point Jerningham where I saw no picket boat in position. This led me to believe the race had been abandoned so I turned and headed back to the landing stage.

At this juncture I had 1¾ hours to complete the last lap. While the skin divers held the boat I asked whether I was to complete the course (which I was willing to do), and an official from the control caravan told me to come out of the water and refuel. After doing this I went to the control caravan and was assured there, that I would not be disqualified.

The explanation given to me at the prizegiving as to why I could not be computerised was so wrong because all that was required was to put 1/6th on to my time and petrol used to that point.

I feel cheated at the final decision of the organisation when I had been assured by officials that there would be no disqualification, especially as I was prepared to finish the race under any circumstances.

K. W. ROBINSON

Christchurch

In reply to Mr Robinson's letter the Wellington Power Boat Race Organisation Inc. say —

The president, secretary and an executive member spent considerable time at the prizegiving explaining the causes for their decision to abandon the race before all boats had completed the course. I can do no more than repeat these facts: (1) Toward mid-afternoon on race day the northwesterly gale increased to just on 80 knots. (2) Many of the W.P.B.R.O. safety boats were forced, for their own safety, to seek shelter, leaving the course inadequately patrolled. (3) Boats which had taken up positions on the turning points (necessitated by the swamping of the marker buoys) were unable to maintain their position. (4) Lap scorers on some points were unable to sight the competitors because of flying spray and sand. (5) The official time-keeper, sited in a caravan on Shelly Bay Wharf, radioed to control headquarters that his caravans were in real danger of being blown completely off the wharf.

The executive responded by motoring to Shelly Bay Wharf, observing the conditions and deciding unanimously that in the interests of safety the race be abandoned and all attention be given to locating and retrieving those boats which were still on the course and not accounted for.

In fact, there were at that time only two boats on the course who were still competing and willing to continue, your own boat *Futuria* and *V100*. I suggest that your attitude would have been one of more justifiable annoyance had we allowed you to continue without adequate safety boats for your protection and you had suffered a mishap resulting in the loss of your boat or worse.

. . . but where is he ?

No. 3 **By I. J. REAL**

Onshore winds forced us to depart our Norfolk Island anchorage and after some fine weather sailing we were approaching our next port of call. On Wednesday morning of 16 April our skipper was up before breakfast and studying the heavens. At about 0630 he called below to read the chronometer, which we noted to read 183003 GMT, and also noted his sextant altitude of 4 degrees 26.5 minutes. When asked if he was using a star he replied that although it was not really a star, it would be our morning star for the next few months starting from this week. He also informed us that the position line it provided that morning exactly parallelled our course line on the chart.

A sun shot taken just after lunch with an altitude of 55 degrees 15 minutes at 012620 GMT gave a fine cut across our earlier position line, not too far off course and only about 22 miles to sail to our next destination,but what was our next destination ?

As to your complaint that your results could have been computed by putting 1/6th on to your time and petrol useage may I point out that the computer deals with facts and not conjecture. Enquiries which we were able to make on the afternoon established that there was adequate precedent for not considering any boat for whom the facts were not available.

Finally I reiterate, this was a decision made in the interests of safety, it was justified by the circumstances and it was completely within the competence of the executive who made it.

S. A. CLARKE

Secretary

AUSTRALIAN NEWS

by Graeme Andrews

AFTER almost three years of struggle, groundings, crew troubles and financial crisis Australia's most imaginative holiday vessel venture has folded. The cruising schooner *New Endeavour* is laid up in the Brisbane River awaiting sale by tender. Whether she will be run by someone else is doubtful. She would make the nucleus of a good maritime museum but I suppose that would be too much to ask.

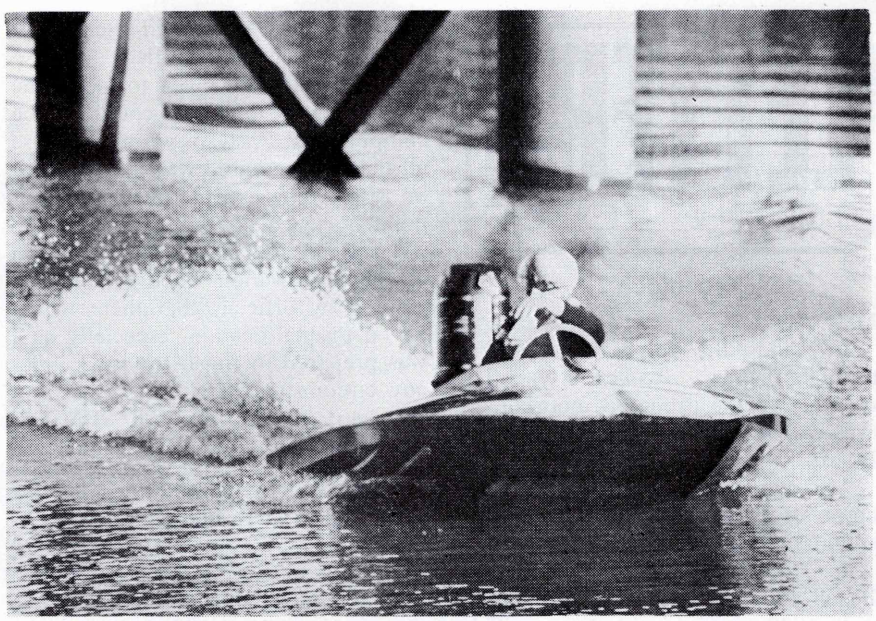
Vacilador burnt

The trimaran *Vacilador* which visited New Zealand recently went up in flames in Sydney while Bob and Ann Steg of San Francisco were away shopping. Virtually nothing was saved as the tri blazed alongside En Zedder Bunny Rabbitt's marina.

Griffith Cup to Assassin

Victorian hydro *Assassin* spread-eagled the field at the St George Motor Boat Club's successful stageing of the classic Griffith Cup. Holding off a belated determined bid by defender Ern Nunn in *Wasp Too* who had played a waiting game expecting the *Assassin* to have her usual breakdown, she hurtled over the line to win heat one and then repeated the performance in the final, heat three. Heat two was won by the big skiff *Michelle Anne* from Canberra boat *Yogi-Bear* (SK) after the smaller *Wasp* driven by Gordon Turvey gave up with gremlins. In heat three Nunn pulled all the stops out of the Ferrari powered *Wasp Too* but the immaculately turned out blown Chrysler powered *Assassin* overcame previous unreliability and blasted *Wasp Too* off the course. *Wasp Too* was unable to compete with *Assassin* in the corners and had less push out of the corners.

One-time holder of the Griffith Cup, 20 years ago, Len Southward of New Zealand, was one of the guests of honour at the race and at the pre-Cup dinner which was attended by several hundred of those who are involved in the sport.



Tony Harkins drives his Molinari cat hull Gold Cat back to the shore after winning the Bridge to Bridge race on the Hawkesbury River

Estimates of the size of the crowd that hung on every vantage point varied but a good guess would be well over 10,000 which for Sydney is phenomenal. The absence of *Tru-Jen* after the on-again off-again rumours preceding the Cup for several months was a disappointment. As late as one week prior to the race people were still making plans for the big boat but it was not to be. It's off to Victoria, for the Cup next year and perhaps the En Zedders will come and try our hospitality that year.

The national outboard titles held on Glenbawn Dam, 200 miles from Sydney attracted over 70 boats from four states. Over three days the little hydros and outboards, with as many as three 125 Mercurys slung aft, diced on the still waters of the dam. Hunter boats made up ninety per cent of the entries and won all but one of the events in which they were entered. The new Molinari, almost catamaran hulls, raced in the unlimited sections and it was the first time that numbers of these boats had done battle. The dispute over whether they are a legitimate tunnel boat or a hydro will be with us for some time. The South Australian boat *Full Fun* was impossible to pick from a hydro.

Southern Cross III rebuilt

Norman Booth's rebuilt *Southern Cross III* the most way out 5.5 metre in the world has been launched. So way out is she in fact that she won't be able to race overseas until November. By that time the rest of the world will have caught up with the trim-tabbed and separate steering rudder system of the local flier. In November all over the world 5.5's will be allowed to race with this set-up. It is possible that the world championship for 5.5's will be held in Sydney early next year and Norman is getting his practice in early.

An international 6-metre competition looks like catching on now that the San Francisco based St. Francis Yacht Club has accepted a Sydney challenge for a best of seven races to be held on San Fran Bay starting July 24. Our representative will be John Taylor's *Toogooloowoo* skippered by Len Esdaille.

The new Soling class seems certain to attract stacks of attention this year. Arguments and complaints are flooding in over the tactics of some of the competitors in the recent elimination trials. It seems that they are sailing as they drive cars and according to international statistics we are the world's most dangerous drivers. Now we have rumours of a Super Soling out of Belgium to upset the applecart and also rumours that the original mould was not quite the same shape on both sides. These and various other buzzes seem to be so serious that the IYRU have had to step in with an official comment on the matter. It

seems that there are in fact NO Solings in Belgium at all and that only three millimetres difference has been found in three thousand boats tested.

R and R cruise

The big thing on Sydney Harbour at the moment is the R and R cruise. R and R stands for "Rest and Recreation" and it applies to the five or six days that are allowed to all American soldiers and others serving in Vietnam. Their arrival with lots of spending money and only five days to shed it has resulted in a major effort to provide tourist and charter boats on the harbour. For many years the visitor to Sydney who wanted to sample the harbour that he had heard so much about, could use a ferry, or drive around it and there he was stumped. The R and R cruises have changed all this. While catering mainly for these R and R visitors they are available, and able to take any and all-comers. The boats themselves range from a 70 ft converted Fairmile, recently bought from the army, to a very opulent American-style cruiser with lots of gadgets and tophamper and slight draught. Tours include a four-hour photographers' special, moonlight barbecues, moonlight dance cruises, and an all-day tour for which one is best advised not to eat before leaving. The cost of these runs varies depending on the legitimacy of the boat and crew and the standard of fare provided. A bad image is being provided by some fly-by-night groups that operate with small unlicensed vessels and rather dubious female company. The legitimate groups are very concerned with this and are worried that either a scandal or a bad accident involving a boat with insufficient life saving equipment will result.

New challenger

Berry's Bay shipwright William Barnett is to start the construction of the America's Cup challenger shortly. The job will take over five months and will be supervised by the designer Alan Payne at all stages. Alan has been thinking 12-metres for most of the last eight years and has spent most of the last six months offshore, watching crew and skipper trials in old-timer *Vim* and the defeated 1961 challenger *Gretel*. If only we had a second new boat to really push the contender.

Bridge to Bridge race

The Hawkesbury river Bridge to Bridge race over 68 miles of sand spits, straights and bends was won by Ron Lawton's Molinari hull *Gold Cat*. Driven by Tony Harkins, the twin hulled rocket beat the field, after sister Molinari hull *Rebel* developed troubles in one engine and eventually came home five minutes later. *Gold Cat* was wearing a 125 Merc on the back and did the 68 miles run in one hour four minutes.

The race had two firsts. The first interstate entrant and the first win for a boat with only one outboard. It seems that this race is becoming purely an outboard event. The race record was set by Ern Nunn two years ago with just over 48 minutes and this record looks as if it may well be forever. Second place outright went to the season's most consistent inboard *Melodee* driven by owner George Kilpatrick.

Skiing

There has been no holding the ski boys lately. Bill Moyes made an attempt on the world kite record in early May. Not content with just intending to stay there for 11 hours or more he decided to include an attempt on the Sydney to Brisbane record by boat. The two to be synonomous. After a little over six hours and a new Australian record, the boat belting along in heavy seas came off a wave and smashed in the hull. Reaching the shore was a battle and the attempt was over but not disgraced.

Talking of skiing, a world record for skiing barefoot backwards has just been set by Garry Barton with a run of over 33 minutes. Other records held here at present are world endurance record 1968 Paul Mcmanus, Mary McMillan first woman to ski barefoot backwards 1969, Ken Matthews first to perform barefoot, rope in teeth, one foot and Geoff Nichols first to succeed in barefoot jump 1965.

TRADE WINDS

Tapered stanchions

MARINE STAINLESS FITTINGS LTD, a firm only established in October 1968, designed and made the tapering stanchions which were fitted to *Moccasin* the first of an export order of seven NZ 37 designs for the U.S. West Coast market (SEA SPRAY June).

The stanchions are made of 16 gauge stainless steel which is heavier than normal and according to a representative from the firm they are the first tapered stanchions to be manufactured in New Zealand. They are available with two different bases, which can be either fitted to the inside or outside of the gunwale.

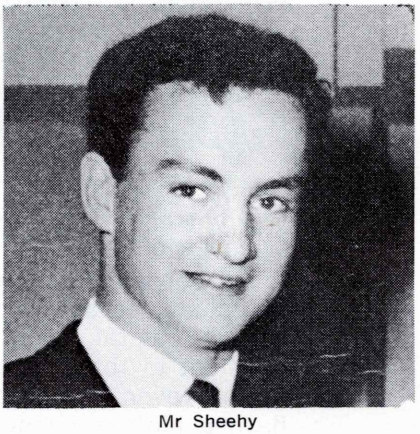
Moccasin was the first boat to have these stanchions fitted and *Roulette II* also had them fitted for the Auckland to Suva race.

Other fittings on *Moccasin* which were manufactured by MARINE STAINLESS FITTINGS LTD were the pulpit, pushpit, winch bases, window frames and chain plates.

Enquiries are welcomed at 5 Kitson Place, Panmure, or Phone 572-226.

Engineer to study electronic fishing overseas

An A.W.A. engineer, Mr Ian Sheehy, left for England recently to study the latest developments in electronic equipment for fishing. He will remain in the European area for two years and will undertake an extensive course of study and do practical work in the field with A.W.A's U.K. associates.



Mr Sheehy

The role of electronics in the New Zealand fishing industry has increased steadily over the years. The extension of the industry into new types of fishing will require the use of more sophisticated underwater electronic

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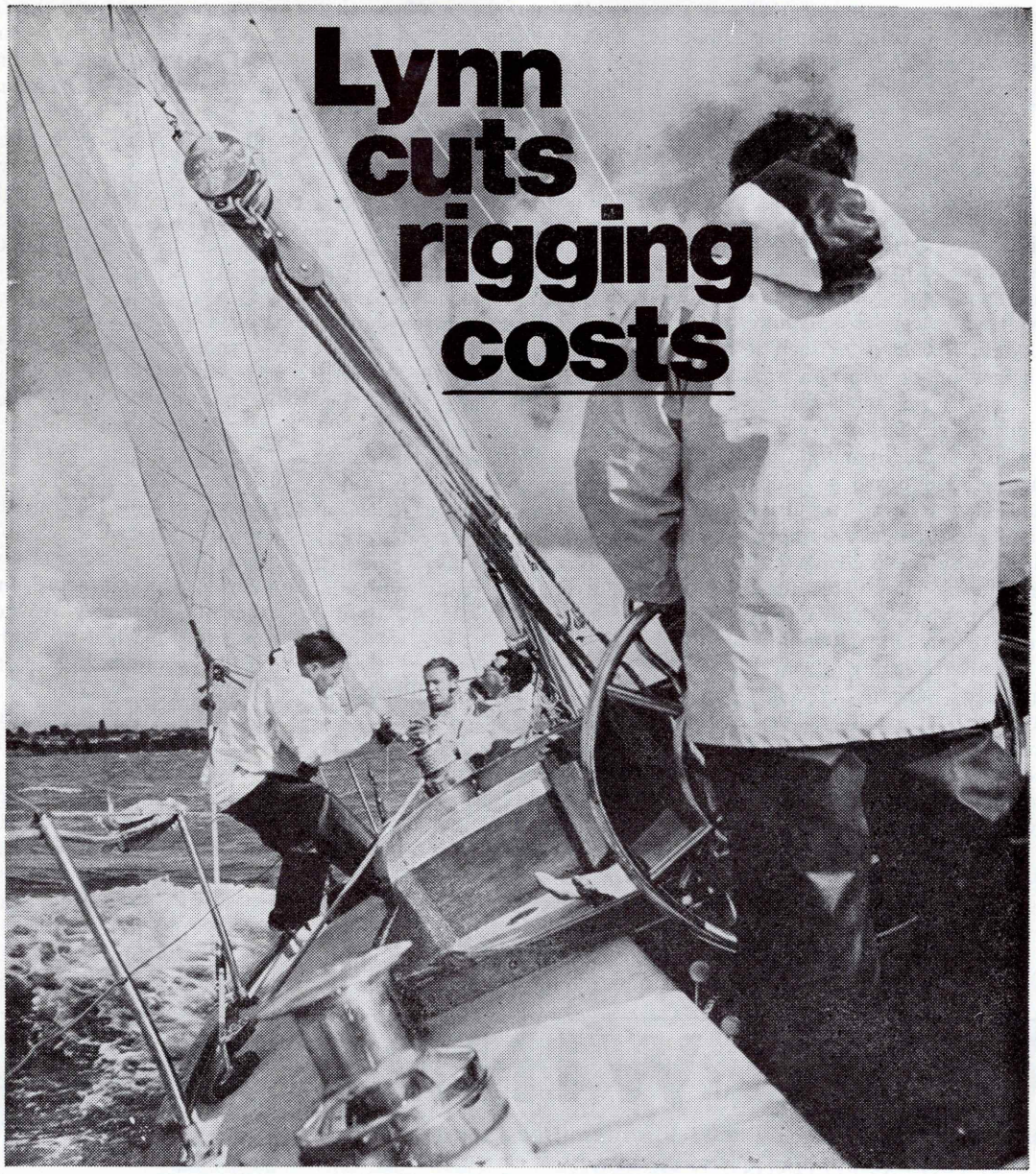
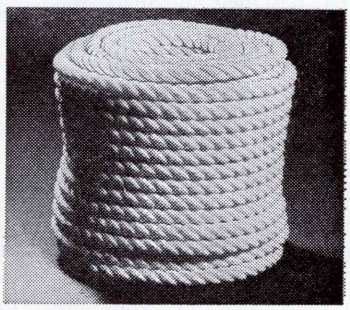


Worried about the high cost of rigging these days? What boat owner isn't. Lynn ropes and cords will lower replacement costs noticeably. Lynn synthetic ropes and cords are virtually indestructible and will outlast natural fibres many times over. They are resistant to rot, mildew, sunlight, water and weather – won't even deteriorate if stowed away wet. They have a high resistance to abrasion, greater strength lighter weight than natural fibres. There's at least one Lynn rope for every job on your boat. Enquire about Lynn synthetic ropes and cords at your chandler's now and find out about the big savings in rigging costs.



F&T CORDAGE
Box 1936, Auckland.

TRADE WINDS

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devices including Sonar. To justify the expense involved in equipping fishing vessels with advanced sonar equipment and achieve effective utilisation trained operators will be required. Ian Sheehy's overseas training and experience are being so guided by A.W.A. that he will be qualified to assist with the training of New Zealand crews in the latest techniques employed in the European fishing industry.

Britain's first all-welded aluminium ocean racer

Alcan aluminium is being used throughout for the largest all-welded aluminium ocean racing yacht built in Britain — the 54 ft *Pacha* now being built at Camper and Nicholsons' Southampton yard for French businessman Mr F. Bouygues.

Pacha is a highly developed ocean racer with a very light displacement for her size. This has been made possible by the use of aluminium as the constructional material.

Pacha's canoe body is framed and plated with the same alloy as was used for the superstructure of *Queen Elizabeth 2*, Alcan GB D54S — an alloy specially developed for marine use, incorporating low weight, good weldability and excellent corrosion-resistance characteristics.

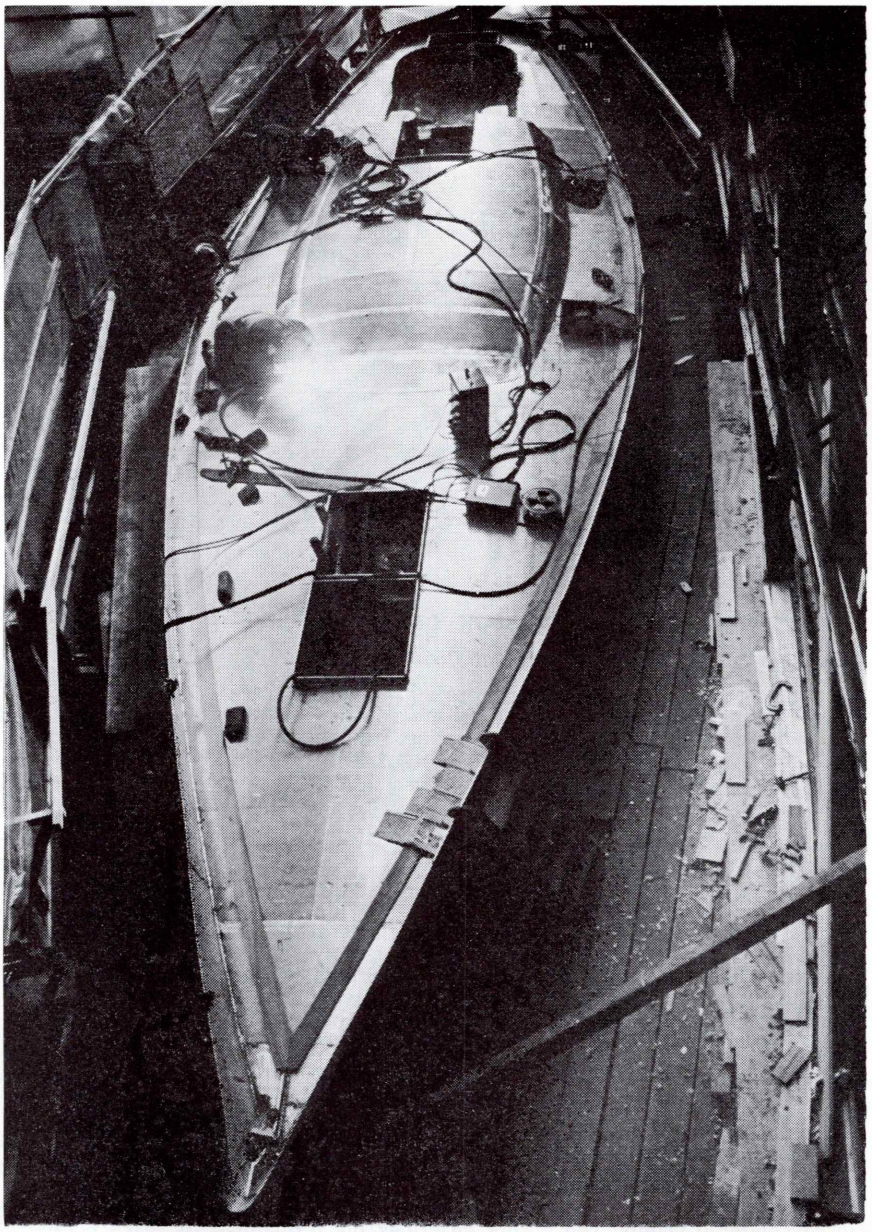
Initially, the hull was formed on wooden moulds in the upside-down position, with fore-and-aft longitudinal stringers of aluminium flat bar welded to web frames from extruded sections. The web frames were cold-formed in setting blocks, while the hull plates were shaped in a roll-forming machine.

On completion of the interior welding, the hull was turned over and the exterior welds completed before the bulkheads, fuel and water tanks and the deck unit (which was built separately as a sub-structure) were welded into position.

In addition to supplying the aluminium requirement for this yacht, Alcan also provided a technical and welding service through its associate, ALCAN RESEARCH AND DEVELOPMENT LIMITED.

The aluminium keel is insulated from its lead filling by the use of epoxy tar inserted under pressure.

Pacha will carry gold-anodised aluminium spars with stainless steel rod rigging supplied by Sparlight Ltd.



Pacha, Britain's first all-welded aluminium ocean racer, being completed at Camper and Nicholson's Southampton yard

She will also be fitted with the latest navigational aids, and in fitting out, as in construction, great care has been taken to use only lightweight materials.

New school

"Be taught to skin dive and stay alive." This is the watchword of a school in Auckland which can claim to be the first of its kind in New Zealand. It is the AUCKLAND SCHOOL OF SKINDIVING.

An official of this school has indicated that for every person belonging to a recognised skindiving club there are an equal number who are loners or belong to casual groups. The majority of these "play it by ear" when it comes to incidents out of the ordinary and it is to these enthusiasts the school is directing the finer and self-preservation points of the game.

After an intensive eight weeks course certificates will be presented to those who pass the sea test. The recipients are then eligible to join one of six clubs operating in the Auckland area.

The school will have the attention of an ex-naval diver, a professional swimming coach, and an experienced skin-diver from an Auckland club.

Continued over

NEW

FROM

VICTORIA BOOKS

YACHTING AND BOATING BOOK OF NAVIGATION

By Capt. D. O. Harvey Price 75c Post 10c

The first part of this inexpensive book gives a complete courses on chartwork and pilotage. In the second part the author explains the art of astro-navigation. This book will prove that navigation is a subject which anybody who sails can master.

CONCRETE BOAT BUILDING

By Gainor W. Jackson, Jnr. and W. Morley Sutherland
Price $5.95 Post 20c

This is the world's first book on thin-shell ferro-cement boatbuilding, a revolutionary process that is rapidly spreading throughout the world. In this book the authors explain everything, taking one step by step through the whole building operation. Setting up the reinforcing, mixing the mortar, and plastering. The book is essential for both commercial and amateur builders as well as engineers. Dozens of photos, diagrams. 108 pages. Hard covers.

HEAVY WEATHER SAILING

By K. Adlard Coles Price $9.30 Post 20c

An important book for any yachtsman who takes his craft out of sheltered waters. The author describes his acquaintance with heavy weather and gales, drawn from a lifetime's long-distance cruising and racing. Each example of heavy weather is illustrated by synoptic charts and followed by a summary of conclusions and practical lessons learnt from experience.

THEY SAIL TO WIN

From 'Yachting' magazine Price $2.85 Post 10c

Includes advice on the elusive art of spinnaker control, tips about the best way to handle your boat on every leg of the course. A close look at match-racing techniques and other items of interest to all who race and sail.

INTERNATIONAL BOOK OF CATAMARANS AND TRIMARANS

By E. F. Cotter Price $4.60 Post 10c

The author has brought together the views and experiences of other multihull sailors in a book that will answer many vital questions for those interested in this type of craft. Designers also explain their concepts and builders describe the trials and tribulations of putting a boat together. The book also has 160 dramatic and 'how-to' illustrations.

CELESTIAL NAVIGATION FOR YACHTSMEN

By Mary Blewitt Price $1.45 Post 10c

This inexpensive book proves there is no black magic about celestial navigation and that a yachtsman need not be a mathematician to work out a sight. Contains sufficient theory to obtain a clear understanding of the subject, but is also a practical book with many examples and diagrams.

SCIENTIFIC SAILBOAT RACING

By Ted Wells Price $5.45 Post 15c

This is a completely revised and up-dated edition of a book which has become a classic of its kind and is regarded as a textbook for all racing skippers in any class. Contains 62 pages of diagrams, 20 pages of photos and the author's secrets of success in winning races. This is one book that should be on your bookshelf.

SMALL BOAT SAILOR'S BIBLE

Hervey Garrett Smith Price $2.40 Post 15c

Here is a book that tells you all about buying boats, hints on materials, learning to sail, care of your boat, sails and rigging, rules of the road, charts and how to use them, glossary of sailing terms and much more. Well illustrated with photos and diagrams.

DEAD RECKONING NAVIGATION

By John Wright Price $4.70 Post 10c

For the novice who aims to become a first-class navigator, and the expert who wishes to remain one. The author teaches you how to navigate, then sends you on simulated cruises to put into practice the things you have learned.

FIBREGLASS BOATS

By Hugo du Plessis Price $8.10 Post 20c

A book of fitting out, maintenance and repair by a fully qualified plastics engineer. It not only describes each stage in detail with the help of 182 diagrams, but also gives a great deal of general advice about the principles of using glass-reinforced plastics.

SAILING YACHT DESIGN

By Douglas Phillips-Birt Price $6.80 Post 15c

A new edition which has been brought completely up to date to bring it into line with the author's other works on design and rigging. The subject is approached scientifically and without dogmatism, explaining progress in yacht design before proceeding to recent developments and practical details.

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Please post the following books. Payment enclosed.

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TRADE WINDS

from page 65

"Although it is recognised that skin divers are individuals," says the instructor, "group or 'buddy' diving can offer much more in the way of adventure and experience."

For snorkel diving the school will be conducted at Mt Roskill swimming pool and for scuba, or aqua-lung, courses will be at private Motel pools where depth is the required asset.

All enquiries should be made to — Phone 871-079 (bus.) or 678-661 and 676-635 (Res.).

Aluminium tube masts

Following the success Australian and New Zealand 18-footers, 12-footers, Cherubs and Moths have had using aluminium tube masts, AITCHISON SPARS of Manurewa, have developed these to suit local racing classes.

The masts can be made in a large variety of tube sizes from 1¾ in to 3 in diameter. By using a variety of tube gauges and tube laminations, the masts can be constructed to give the correct bend and made to suit the class required.

If required, the mast can be constructed stiffly with controlling spreaders so that when the correct spreader position is found, the mast remains stiff, or if the mast is required to bend a little, a small adjustment at the spreaders will alow it to do so until it matches the sail.

Spreaders are made of stainless steel tube, and the fitting on the mast can make the spreader arms fixed, or limit their swing. The mast can also be set up with diamond stays or diamond controlling wires for mast bend adjustment while sailing, on either a high-field lever or block and tackle.

The hounds fitting is all neatly fitted inside the mast so is trouble-free and this stops the exterior spinnaker halyard getting tangled up.

Taper above the hounds is standard on all masts and is proportionately smaller fore and aft than sideways at the top, resulting in a perfect taper.

These masts are available in two stages — (1) with the sail track glued and riveted to the tapered mast, and painted; (2) as in (1) with the hounds, masthead sheave, base plug, gooseneck track, stainless steel stays and other fittings as required by the rig for which the mast is being set up.

These masts when set up and finished, present a very clean spar with minimum windage and minimum weight. They are being constructed to give peak performance for racing classes, to match the standard set by overseas metal masts.

Hengist D

Hengist D is an adaptation of the well-known Brookes and Gatehouse Hengist wind direction indicator. Prototypes were built for Rodney Pattisson's Flying Dutchman *Superdocious* and Robin Aisher's 5.5 metre *Yeoman XV*, and both yachts used the instrument with success at the Olympic Games at Acapulco.

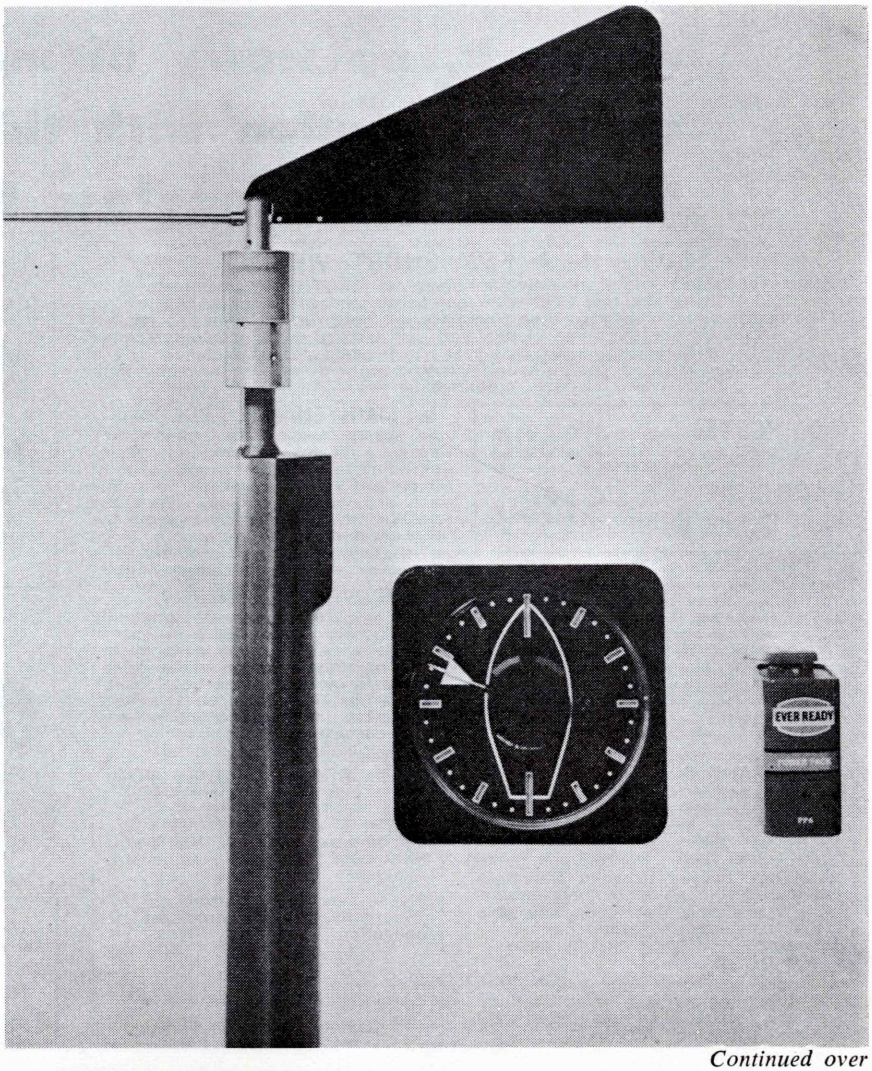
Hengist D comprises a masthead transmitting unit weighing only 3¾ oz and an indicator of face diameter 4 in and weighing 14 oz. Both units are hermetically sealed and corrosion-proof and will withstand total immersion in sea water. The transmitting unit is itself sealed to the mast-cap, to conform with mast flotation requirements in some classes. The units are joined by a light cable which runs down the inside of the mast and which weighs only ¼ oz per foot. Power is supplied by a small transistor radio 9-volt battery.

These are available from THE BRITISH TELTHERM CO. LTD., Phone 545-065 Auckland or Phone 50-943 Wellington.

Vitessa 30

A Dutch boatyard, Jachtwerf De Boeg of Lemmer, is in the news as a result of equipping their 30 ft cabin cruiser *Vitessa 30* with Hamilton Jets.

The two 3-stage jets, driven by two Ford Mustang engines, are said to give *Vitessa 30* "unrivalled manoeuvrability through shallow, foul and rough waters." Jachtwerf De Boeg say that reactions so far have been "extremely favourable" and that following a trial with the South Holland Lifeboat



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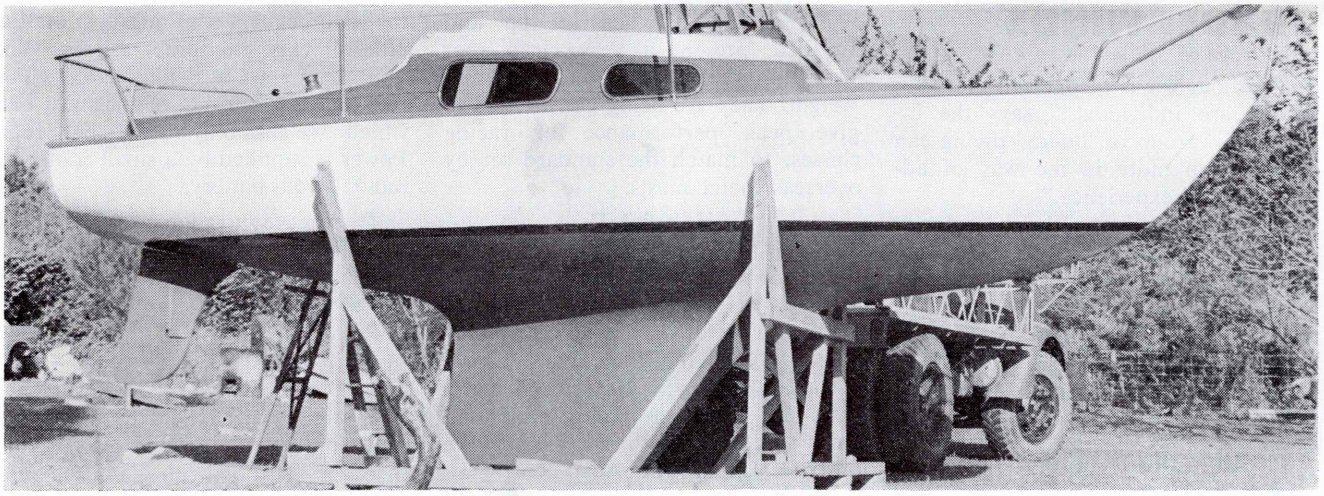

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Whether you select the "sail-away" all-fibreglass SOUTHERLY, complete with spars, sails, rigging and fitted out with four berths and galley for $3,600 . . . or the Yacht Kit, which consists of the fibreglass full keel, decks, cabin and cockpit for the incredibly low price of $1,800, you will be getting all the appreciable advantages of a fibreglass keeler at a cost which could not be matched by the more vulnerable wooden boats. And delivery is only a matter of weeks from ordering!

COMPLETE to sail away	**$3600**
YACHT KIT Hull, Decks, Cabin	**$1800**

- **PORTABLE**
The trim 23' x 7' 4" x 4' 1" combined with light weight, means that the SOUTHERLY can, if required, be transported easily and economically.
- **STURDY CONSTRUCTION**
The same incredible strength of fibreglass hull which has been proved with powerboats goes into the SOUTHERLY, plus an internal stainless steel bridge below the mast. Her shape is always retained, no warping nor twisting.
- **SALT AND SUN PROOF**
Salt water and sun, which create such damage to wooden yachts on the moorings, have no effect at all on the SOUTHERLY. The "teak" or "mahogany" cabin sides and transom in the SOUTHERLY consist of solid fibreglass impregnated with an incredibly genuine-looking varnished-timber finish. You have all the elegance of natural timber — for ever — without maintenance
- **NO RUST**
The only exposed metal on the SOUTHERLY comprises the aluminium mast and spars, and stainless steel standing rigging and fittings.
- **MAINTENANCE FREE**
No seams to open, no timber to rot, no deck seams to leak, no varnish or paint to deteriorate, and — most important — no expense of hauling out and no winter work! With the SOUTHERLY you simply repaint the below-water anti-fouling once or twice a year between tides. No other keeler can offer you these priceless benefits!
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The New Zealander who originally designed the SOUTHERLY in Australia has seen the soundness of his planning proved by the tremendously successful growth of the SOUTHERLY across the Tasman. Now it is here, with every indication of being even more successful for both racing and cruising in New Zealand.

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Thompson Marine Ltd
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TRADE WINDS

from page 67

Company, who were surprised by the boat's performance, a larger vessel is being developed for lifeboat work. Additionally, negotiations are in progress for the sale of several *Vitessa 30s* to Friesland's Department of Ways and Communications for use in measuring operations in the Dutch shallows. These craft will be modified to meet the Department's specifications, but the hull will be the same as that used in the prototype luxury craft.

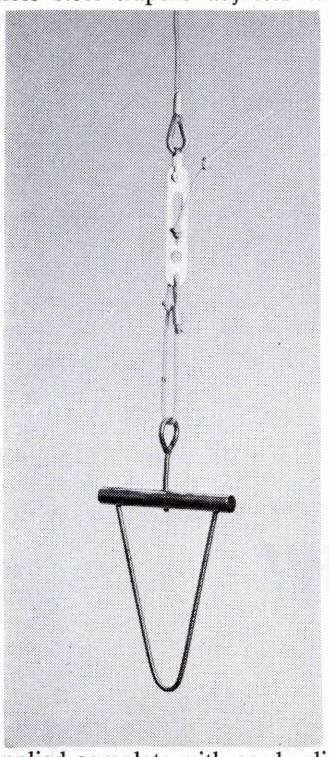
That this Dutch government service is so interested in the jet-driven boat is, according to the builders, because she can be kept on course and in place in a strong current without drifting — a valuable asset in measuring craft.

The Lemmer yard is also in possession of plans for a *Vitessa 30* freighter adapted for navigation on fast-flowing rivers. This vessel, say the designers, would open up "untold possibilities for delivering the mail and necessary food supplies, for the transportation of doctors, soldiers, munitions and medicine through jungle regions."

The "Stowaway" folding trailer demonstrated by inventor Mr Leslie Edwards. The 6 ft trailer can be folded down in a few seconds and is small enough to fit in the boot of a car. This was specially designed for launching small boats up to 10 ft. All enquiries should be made to Alfriston Old Forge Products Ltd, The Forge, West Street, Alfriston, Sussex, England

Trapeze adjuster

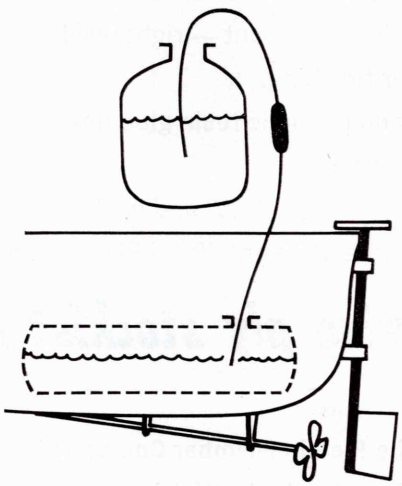
Now available from MAHAN MARINE Ltd, Christchurch, is a stainless steel trapeze adjuster which



is supplied complete with cord spliced. Positive and quick in action, it has no working parts to go wrong. Trade enquiries are welcome.

Sifon starter

E. J. STUART LTD of Hamilton have recently manufactured a unit called a Sifon Starter which is a



means of siphoning liquids in a safe, easy way. It is simple to use — just squeeze the rubber bulb (petrol and oil resistant) inducing continuous flow. This will be especially useful when transferring fuel in rough seas.

Available from TRAILER CRAFT MARINE LTD, P.O. Box 31004, Milford, Auckland.

Selling agent

Captain C. B. Thompson has been appointed selling agent for Compass Yachts (NZ) Ltd for Eastern Suburbs, South Auckland and Northland.

Compass Yachts are the manufacturers of the first fibreglass keel yacht manufactured in New Zealand, the Southerly 23, which will be followed by a range of fibreglass yachts from an 18 ft trailer sailer.

Enquiries to Thompson Marine, 26 St Heliers Bay Rd, St Heliers Bay. Phone 580-130.

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SPEEDBOAT NEWS

CENTRAL ZONE

By Prop Bender

Wrong boat

IN my report of Wanganui's major regatta published in May, I referred to the Manawatu hydro *Nervous Too* ex *Gold Mist* ex *Medea*. It has since been brought to my notice that *Gold Mist* is still in Lionel Fussell's garage in Auckland, and was never called *Medea*. It appears that I was misinformed on this point, and I apologise to Mr Fussell and all concerned for this error.

The Central Zone season has well and truly finished, but unfortunately I haven't been able to get many reports from around the clubs to include with this report.

Manawatu's closing day was held at Lake Papiatonga, Ohau, on Sunday 13 April, the day after Wanganui's Bridge to Bridge regatta, so naturally most of the same boats went down for the day. There were good entries in all classes, and racing was of a high standard. The course on the lake is rather unusual, being rectangular with short straights and wide turns, which puts some of the faster boats at a disadvantage, but has the effect of narrowing the gap between the slowest and fastest boats. However, it's a pretty tight circuit and Doug Cameron with *Miss Print III* was heard to remark that he had left lock on all the way round. He wasn't complaining, however, and appeared to thoroughly enjoy his day, as did most of the boaties.

A few boats failed to finish the day, one of them being Bill Stokes' *Voodoo IV*, which sheared the prop shaft off and lost the end of the shaft and the prop at the bottom of the lake. A very expensive loss but all in the day's racing. Others had minor troubles and quite a few just succumbed to the effects of a long and hard season.

The feature race of the day was the Manawatu 266 cu in S.V. R.R. championship. Eight started in the event and from the first lap it was a triple duel between national record and title holder, Neil Johnston from Wellington with *Clipper*, and the two main Manawatu contenders, Bill Wai's *Hi Torque* and Bob Dunlop's *Upanatta*. The three rounded the first turn in this order and travelled the whole six laps with never more than a boat length between them. Neil drove an excellent race to take line honours, but it was so close right through that one slip could have made it anyone's race.

The hydro events were very spectacular on the tight course, and often all that could be seen from the bank was a shower of spray as four or five screaming hydros rounded a buoy together. Taking it overall, a very successful closing day.

The Wanganui season finished rather abruptly, as the final interclub run-around day which was to be held on Sunday 27 April had to be cancelled owing to contractors working on the construction of a new timber retaining wall along the foreshore. We had quite a good season, one of the main features being that no fixtures had to be cancelled or postponed due to poor weather or water conditions, which was quite a change after the last few seasons.

The Wanganui-Manawatu interclub contest for the Lou Tate Memorial Trophy was won by Manawatu, with 298 points to Wanganui's 264. This is the third time Manawatu has won the trophy since its inception in 1960. The Lou Stonehill Trophy, for top points scorer in the Wanganui Club, was won for the first time by Dick Barron, with his Corvette powered *Typhoon III*. Dick is retiring from competitive speedboating after 19 consecutive seasons with the club, and we were very pleased to see him go out with this trophy.

Plans for next season are now under way, and it looks as if we could be in for a really good season, with improved interclub competitions, a new look Bridge to Bridge regatta with our King of the River title race, plus other events.

OTAGO

By Gadabout

Although the past season has probably been the worst on record weatherwise for the Otago Power Boat Club the same cannot be said for the performance of the club's ever-growing fleet.

Club boats have been right to the fore in the majority of South Island title events. Cyril Baikie's *Grey Nurse I* won the South Island 75 cu in S.V. R.R. championship at Otago, and also the N.Z. 75 cu in S.V. R.R. championship at Alexandra. Then Des Geddes driving *Dyna Flo* won the South Island 75 cu in hydro championship at Lake Wahapo and also the 100 cu in Rose Bowl at the same regatta.

The South Island 100 cu in hydro championship was won by Bob Anderton driving *Hitchiker* at Otago. The N.Z. 100 cu in hydro championship held at North Otago was won by Gary O'Kane driving *Hot Spot*. Gary also won the Kelvin Park 100 cu in hydro cup (Southland championship) and was also third in the South Island Unlimited Unrestricted championship held at Southland.

Bob Anderton drove *Hitchiker* to victory in the N.Z. 266 cu in hydro championship also held at Otago and last but by no means least Bill Patterson driving *Aquanaut*, in its first season, was second in the South Island Unlimited Unrestricted championship at Southland and then finished second in the Masport Cup at Picton.

At Picton Bill was mistakenly entered in the South Island Unlimited auto R.R. championship which he won but when the mistake was realised the event went to *Panther*. *Aquanaut* being powered by an aircraft motor was not eligible for the event. Bill climaxed his first season by breaking the N.Z. Unlimited R.R. record with a speed of 97.260 mph.

As can be seen from the above the Otago Club is probably the strongest it has ever been with regards to reliable and fast boats. Lets hope this pleasant situation continues next season with even more boats joining the club. Some new, and others imported from other clubs.

While championship winning by club boats was a highlight of the season one should not forget the other drivers who have successfully competed and provided the competition and incentive to produce a good fleet of top line boats. Many of the drivers who hold the club together have not won a single title but they have been successful in winning club trophies in handicap events, thereby maintaining interest in the club itself and also keeping public interest in the sport alive.

CHRISTCHURCH

B.R.M. motor for new boat

by Nick Tolerton

A B.R.M. V8 engine, once in a car on the European Grand Prix circuit, should power Christchurch garage proprietor Bob Hayes to some spectacular boating successes next summer. He is having this engine installed in a boat to be built for him with the Australasian 150 cu in speed record and the Masport Cup in mind.

The boat — to be named *Inovation* — was designed by Ian Jarvie and will be built by Mr L. A. Falconer in Christchurch later this year, and it should be in the water about November for next season's regattas and big contests.

How did Mr Hayes get the racing car motor — because of their cost an uncommon power unit for a power boat? It was originally brought to New Zealand by Peter Yock for motor racing. Mr Hayes bought it in 'blown' condition, and in his spare time is restoring it to its original condition of a few years ago.

"I can only afford the motor because I got it in a 'blown' state," Mr Hayes told me.

The boat will have a 15 ft 9 in hull, and it will be within the 150 cu in class, although it will be raced in the 180 cu in class. The light motor will feature four overhead cams and fuel injection. The motor should be quite capable of sending the boat to speeds in excess of the present 150 cu in Australasian record of 114 mph, which was set on the Christchurch Estuary by Peter Knight in *Bel Air III*.

With *Inovation* Mr Hayes will go a step up from *Dyna-Flo*, his previous boat. This hydroplane, built by Mr Falconer about four years ago, was the fastest 75 cu in one in the country. It has been sold to Dunedin.

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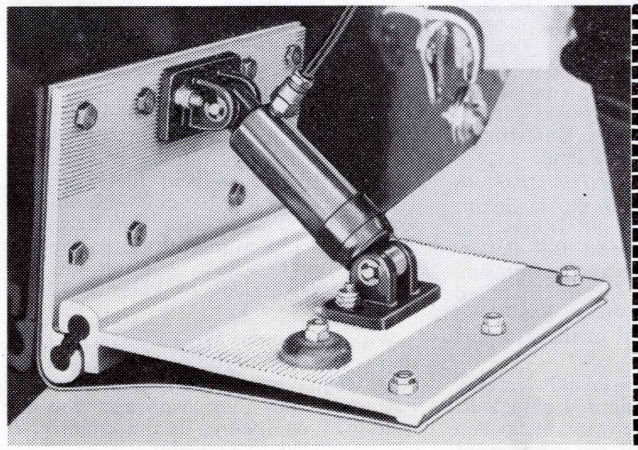

For further information and the name of your nearest stockist — post this coupon to: AQUATICS (NZ) LTD, P.O. Box 3763, AUCKLAND.

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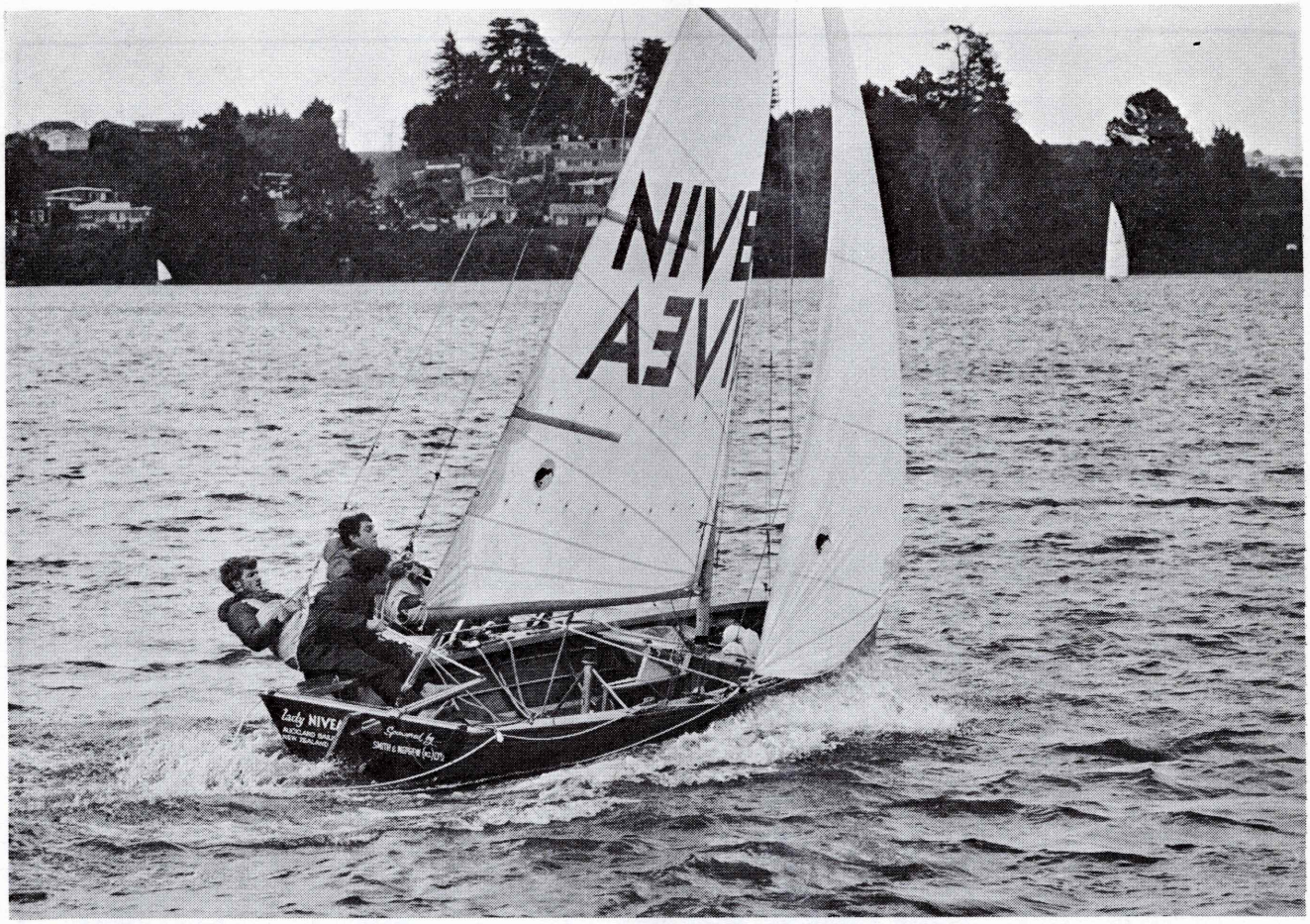

Wayne and Noel Fleet's new 18-footer Lady Nivea racing on Lake Pupuke. Designed by Laurie Davidson, whom the Fleet brothers describe as "the brains behind the boat", she was built by Bob Hart. The finished hull, without fittings, weighed only 160 lb and she has been designed to the minimum beam allowed. The 27 ft mast is clean with no spreaders and can be adjusted to carry two rigs by means of a sock system. There is 16 lb of lead in the bottom of the centreboard and her crew find her amazingly stable. The third crew member is Murray McDonnell, who won the Junior Moth class national championship in 1968

PROVINCIAL NOTES

AUCKLAND

Wakatere Boating Club

Club points for 1968-69 season

TWENTY-three Frostbites sailed regularly on club days this season. Ron Lamb maintained his position at the top of the fleet with Gavin Armstrong second and Bob Gillies third. The handicap points section for the season resulted in a popular win for vice commodore Vaughan Chapman. Vaughan is always willing to give up his sailing when an administration job needs to be done on the shore, so it is meritorious that he should amass sufficient points to take the trophy. The first 10 boats in each section were as follows —

Senior Frosbite club championship points: 1 R. Lamb *Diane* 977; 2 G. Armstrong *Omega* 815; 3 R. Gillies *Kiteroa* 747; 4 C. Robertson *Cameo* 669; 5 L. Willis *Kotahi* 508; 6 F. McLeod *Comet* 443; 7 N. Coleman *Secret* 365; 8 I. Holmes *Que Sera* 340; 9= V. Chapman *Kotaku* and A. Clark *Michelle* 316.

Senior Frostbite club handicap points: 1 V. Chapman, 525; 2 R. Gillies 508; 3 L. Willis, 494; 4 I. Holmes, 489; 5 R. Macduff *Supercraft* 468; 6 F. McLeod 445; 7 A. Clark 443; 8 N. Coleman 396; 9 R. Lamb, 352; 10 G. Armstrong 348.

Junior Frostbite club championship: 1 F. Gillies; 2 Rex Lamb; 3 D. Armstrong; 4 Lesley Chapman; 5 G. Smale; 6 P. Armstrong; 7 N. Watson; 8 Helen Robertson; 9 D. Coleman; 10 M. Robertson.

Junior Frostbite club handicap: 1 Rex Lamb; 2 F. Gillies; 3 D. Armstrong; 4 Lesley Chapman; 5 G. Smale; 6 N. Watson; 7 P. Armstrong; 8 D. Coleman; 9 M. Robertson; 10 Helen Robertson.

Geoffrey Topham was the club Sabot champion, scoring highest points in championship and handicap sections. Rex Lamb added to his Junior Frostbite laurels by being second in both sections in the Sabots. Sabots are steadily on the increase at Wakatere, and every week the club receives an enquiry from farther afield regarding building or purchasing one of these handy little international junior trainers.

Club Sabot championship points: 1 G. Topham *Sambo II* 945; 2 R. Lamb *Sparkie* 863; 3 F. Gillies, *Samba* 652; 4 R. Chapman *Seabird* 592; 5 R. Taylor *Saga* 591; 6 M. Johnston *Stony* 506; 7 M. Robertson *So What* 476; 8 B. Biggwither *Syclone* 233; 9 D. Armstrong *Salvo* 220; 10 G. Davidson *Selena* 211.

Club handicap points: 1 G. Topham 693; 2 R. Lamb 672; 3 R. Taylor 592; 4 R. Chapman 589; 5 F. Gillies 420; 6 M. Johnston 371; 7 M. Robertson 361; 8 D. Armstrong 313; 9 C. Ingham *Serpent* 276; 10 J. Pring *Supersab* 239.

Auckland Harbour Board Notice

Channel Buoy F — Light alteration

As from 28 May 1969, the light on "F" buoy, (143° 3900 feet from Mount Victoria flagstaff and southwest of North

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Head), flashing white every second, will be changed to flashing white every two seconds.

Auckland Land Yacht Club

As a sequel to the adventures of a group of O.K. class helmsmen piloting converted boat trailers and other miscellaneous heavy transport under sail along Northland's beaches in 1966, it was decided to try and establish a light, safe, inexpensive (if possible) and highly competitive one design yacht for sand sailing. The hilarious and sometimes frightening experiences of the small initial band of pilots had shown the fantastic potential of sand sailing both for pleasure and competition.

During the winter of 1967 a trial horse was built, running along the lines of the most economical American yacht known at the time. Having no success in contacting the sponsors of the American craft, the designers set out in the dark with their only practical experience gained from jury rigs.

The first yacht was nearly all that could have been hoped for. With only 50 sq ft of sail, it would accelerate a light crew to several times the wind speed with what, to a lot of motorists, seemed enviable acceleration. However, the average weight of the interested parties being what it was, the mast and sail were increased to 70 sq ft. This increased the overall stresses and several modifications were made to the frame. With the bigger sail and the heavier pilots now punishing the yacht, the back axle came in for a line of strengthening operations. All this was done in a very spartan fashion with an eye to the overall weight problem. With all problems apparently solved, eight prospective owners pooled their resources and mass produced eight frames off the one jig.

The inaugural race meeting consisted of five of the completed yachts spending Labour week-end at Raglan. Raglan did not provide the ultimate surface for sand yachting, but it proved that aimless meandering in a sand yacht was out, racing was the thing.

In the hunt for suitable racing areas, a beach was tried on the west coast, south of Auckland at Waiuku. This has been the Auckland centre for land yachting ever since. With fortnightly meetings the Auckland club began notching up miles and an astounding amount of interest was shown at every appearance. Plans were made available, and the club was founded, being used as a sponsor for the Sandfly class as it was popularly named.

The club was approached by organisations to demonstrate land yachting as an attraction to their respective beaches and this began a series of widespread demonstrations, resulting in annual fixtures at many places for sponsored trophies. The first, and probably most well remembered demonstration was held at Dargaville at Easter 1968 with very heavy conditions prevailing. Here the yachts met their ultimate test. Sails came in for the most punishment, sometimes being used nearly eight hours a day. One enthusiastic skipper hammered his yacht into halves, the resulting modifications becoming generally copied and then adopted as normal construction. On one day with all yachts close-hauled, a beat of nine miles in sixteen minutes was recorded.

With more yachts racing, rules began to play a greater part in competitions and a committee was formed to investigate and table a set of racing rules. These are not to be formally adopted until they have been compared with the International land yacht racing rules, yet to be received by the club. With hope of the usual winter sou-westers, it promises to be a boomer year for Auckland land yachting. Sail No 17 was recently issued to a Northland enthusiast and the club is looking forward to inter-territory competitions.

Enquiries are often received from a group of yachtsmen in some districts wishing to sail a land yacht in the winter. With this sort of thing occurring, it is to be hoped that some day soon the club will be able to organise interclub events with regular yacht clubs.

Land yachting has proved a reasonably cheap sport to enter, but provides a fantastic return for outlay in enjoyment. Most builders complete their craft for approx $175.00. Club members often group their efforts to provide welding facilities for the help of laymen unaccustomed to working with steel tube etc. Interesting developments are coming to hand all the time and there is no shortage of enthusiastic volunteers to try them out. Describing the ride in land yachts proves almost a hopeless task, no one has yet come up with adjectives that aptly describe the many sensations encountered. It should suffice to say that there has never been any person, who once having experienced the pleasure of the ride, does not take an acute interest in the club and its activities.

In conclusion, it appears that land yachting is in N.Z. to stay. With no lack of suitable beaches in either Island, the future of the sport could not look better.

Any enquiries should be made to the Racing Secretary, Auckland Land Yacht Club, P.O. Box 93, Howick.

Royal Akarana Yacht Club

A fantastic 85 starters in the second race of the Royal Akarana Yacht Club's winter programme was an all-time record for the club. The increased interest in this winter series has meant that the club has had to form four divisions, A division, B division, C division, and RORC.

In the A division *Torea* won the first race with *Moonlight* second and *Secret II* third. Ian Littler's *Princess* won the second race from a mark foy start with *Juanita* second and *Leda* third.

Des Baster's 44 ft centreboarder *Mary Terese* won the first race for the B division with the Yachting World Diamond class *Talaria* second and the E class *Windtanz* third. The second race was won by the E class *Atua* with *Firebird* second and *Taranui* third.

The Leander Sea Scouts were first in the first C division race with the new fibreglass keeler *Southerly* second and the Flying Fifteen *Ffonecian* third. In the second race *Le Vanquer* was first, *Ffonecian* second and *Emeryld* third.

There has been some close racing in the RORC division with *Panther* scoring a win in the first race and a second in the second event. *Renegade* was second in the first race with *Interlude* third. *Interlude* won the second event and Alan Adam's *Salome* had a good race to be third.

Auckland RNZAF Yacht Club

Perhaps it is because the RNZAF is a maritime force or perhaps it is the

Part of the record fleet of 85 boats preparing for the start of the second race on the Royal Akarana Yacht Club's winter programme

CASTANET FIRST OVERALL AND B DIVISION

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such as Auckland to Suva

(Are THEY the toughest proving ground?)

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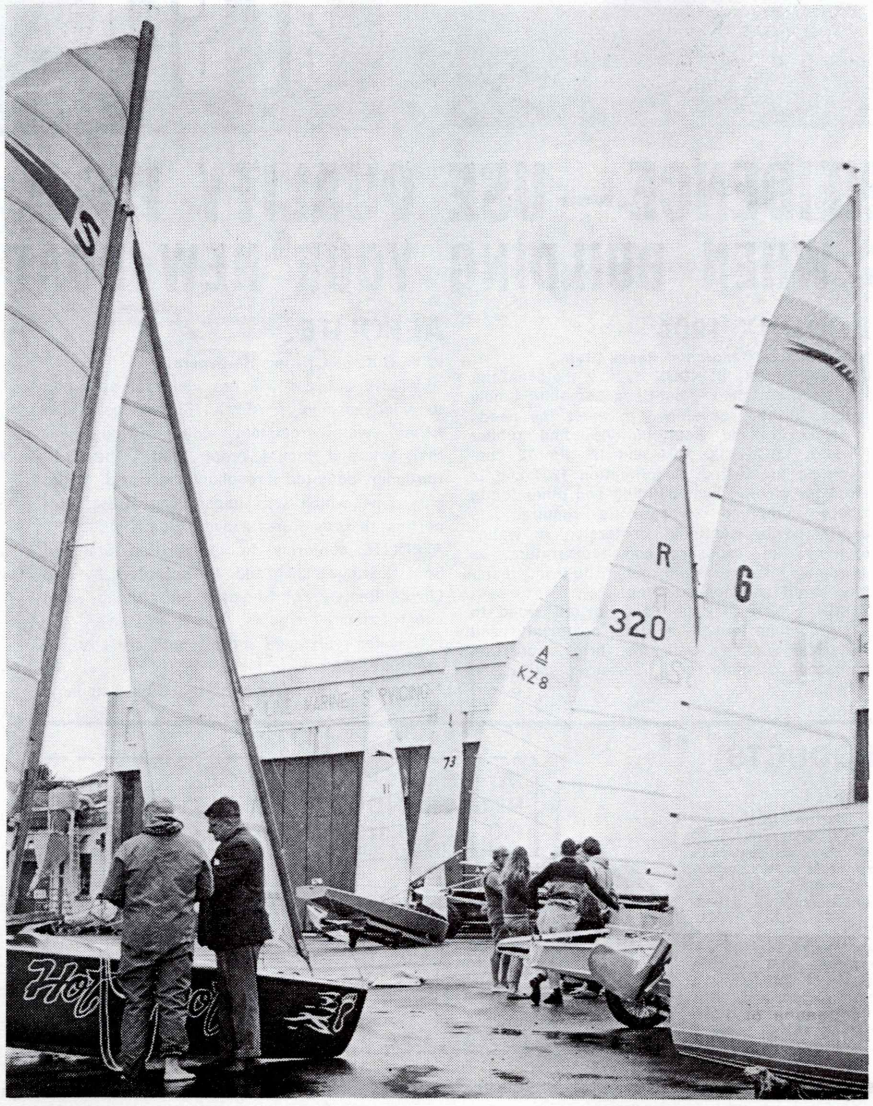
natural love of New Zealanders for the sea that has given strength to the sport of yachting on RNZAF Base Auckland. The vigorous yacht club which is now in its seventeenth year has a current financial membership of 120, of whom 40 are dependents of serving personnel. The club has taken great strides in interesting young people in the sport of yachting and regularly runs sailing classes to allow youngsters to qualify through to eventual A class helmsman standard.

The racing season runs from 20 October to 11 May and an average of 20 yachts participate in the 30 races on the season's calendar. The races which are held in three divisions — catamarans, monohulls over 12 feet, and monohulls under 12 feet are keenly contested and provide exciting finishes in the rather difficult tidal conditions that prevail in the reaches of the upper harbour near Hobsonville. A concerted effort has been made over the last year to improve the clubhouse and facilities and the clubrooms which have wide views of the harbour from Kauri Point to Herald Island have been transformed by willing club members working on a voluntary basis.

Centreboard sailing is not the only activity. Nine keel boats ranging from a Stanley 19 to the venerable A class *Ida* which was built in 1897, are kept at permanent moorings laid last year close to the Hobsonville Airfield slipway. Club members can at least say the range of craft sailed allows them to be familiar with a number of different classes. These include the Shearwater cat, an International A class cat, 11 Paper Tiger cats, one Heron, eight Moths, one Hornet, three Idle Alongs, five Sunbursts, two R class and two Javelins. In addition, some nine or 10 power boats are part of the club's fleet and some of these do sterling service as pick up craft when the occasion arises. The club is also grateful to the RNZAF Marine Flight based on Hobsonville which for many years has assisted with advice, facilities and rescue work when necessary.

The club officers are: commodore Air Commodore T. F. Gill, officer I/C Squadron Leader A. Rodgers, club captain Flight Lieutenant G. Y. Gemmell, vice captain Flight Lieutenant G. M. Cochrane, secretary Flight Lieutenant D. A. Soper, treasurer Flying Officer K. A. R. Butcher.

A section of the RNZAF's mixed fleet on the hard prior to a race



Auckland Register

Changes of ownership and new registrations recorded with the Auckland Yachting Association.

A86 *Brigadoon*. A. B. and M. A. Johnstone, 30 Jubilee Ave, Devonport, Auckland 9.

B98 *Puruwai*. B. M. Hall, Burwood Rd, Matamata.

E290 *Fiesta*. Peter Douglas Stevens, No. 24 Marsden Power Station Village.

F231 *Ahere*. Howard B. Patterson, 57 Beresford St, Bayswater 9.

JAV132 *Profile*. Brian Woods, 61 Edmund St, St. Heliers Bay, Auckland.

L17 *Moonraker*. Garry Hewson, 51 Shakespeare Rd, Milford.

MY253 *Talisman*. W. L. H. Jackson, 16 Tuhimata St, Auckland 5.

OC114 *Revolution*. Paul James O'Halloran, 55 Ridge Rd, Howick.

THAMES

Thames Sailing Club

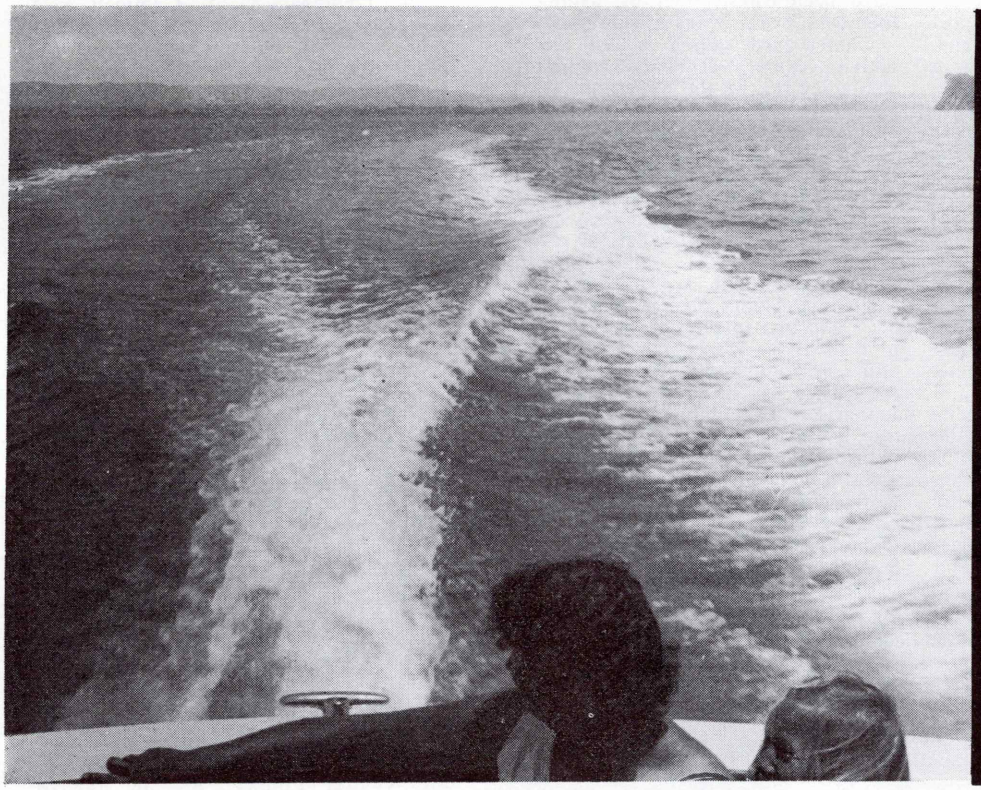
by Chinese Gybe

Recently at the Thames Sailing Club annual presentation of trophies, a very rare presentation was made to Mr and Mrs George Pollock. A club stalwart over the past thirty years and skipper of the first racing dinghy built and sailed at Thames, Mr Pollock was presented with a club honorary life membership certificate. The other original crew member of the *Black Cat*, (now the club patron) Mr Bert Donnelly, made the presentation after an enlightening talk about early boating at Thames. I could see that a few of the younger hardcase yachties began to feel quite angelic after this talk.

The annual presentation of prizes was then made by Mr Pollock, and the evening continued with supper and dancing. Before presenting the trophies and congratulating the successful yachties, George spoke of the history and reasons for the naming of the trophies, one of which dates back to 1911 and many others from 1943 onwards.

Winners of the four class championship trophies were T. Matuschka in the P class, Paul Paynter in the B class, Wally Slaney in the Cherubs, and Jack and Peter Rolfe in the open A class. Other trophies of special significance were the Hall Cup for seamanship which went to Rex Sturmey in *Kestrel*, the Mrs Brokenshire Memorial Cup for the lady skippers race which was won by Mrs J. Clarke in *Duchess*. The winner of the White Trophy for junior skippers was Terry Dovell in *Firebird*, and this seasons holder of the big Dallas Howe Memorial Trophy is club commodore Ken White, in Moth *Naiad*. This time the Mugs Cup was won by Kevin Pollock.

The official prize list for class racing was: P class — Griffin Cup, *Viva* D. Stephenson; Smith Cup *Flirt* C. Smith and *Fram* L. Lamberg equal; Kuranui Cup, *Three Monks* T. Dovell; Wilkinson



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B class — Poland Bowl *Sabre* T. Smith; Rex Danby Memorial *Sabre;* Rowe Cup *Sea Fever* P. Paynter; Moanataiari Cup *Waldo* R. Danby; Frisken Cup *Naiad* K. White; Tararu Cup *Sabre*; Speights Cup *Naiad*; Tindale Cup for B class championship points *Sea Fever* P. Paynter.

Cherub class — Gwynne Cup *Hornet* W. Slaney; Clive Green Memorial and Fathers Trophy *Ten To Ten* S. Read and P. Ganley; Johnstone Cup, *Nereus* G. Billing; Hall Cup *Ten To Ten;* Kenny Cup for handicap and championship Anthony Cup went to *Hornet* W. Slaney and D. Hopping.

A class — Waitemata Cup *Unicorn* P. and J. Rolfe as well as Court Cup and Heretaunga Cup, and the Warne Cup for championship points; Cannon Trophy *Cheyenne* B. Mitchell; Thorntons Bay Cup *El Toro* A. Campbell.

TARANAKI

New Plymouth Yacht Club

by Mainsheet

Annual prizegiving and annual meeting will be the next two items of interest to Taranaki members, looming up in the very near future, now that all water activities have ceased.

Several members are building new craft, mostly Shearwaters and OK Dinghies. Shearwaters have certainly become our strongest class and new additions will make them the major section of the club.

The class that needs the greatest boost is the P class and although better numbers were seen on the water last season, they were far too small for an area of this size. There must be many suitable boys who could be attracted to the sport around the city and a little more effort could be made to rope them in.

Our New Year Regatta will be followed immediately with the Catamaran Week and this will bring a big crowd of visitors to New Plymouth. The local committee is right on the ball making full arrangements for the success of the contest. A big cabaret is to be held shortly as a fund raising effort to provide the necessary finance.

Thirty-six enquiries, including eight from Australia have been received from interested contestants for the Single Handed Tasman Race to be held in 1970 and this is very encouraging for the organizing committee. The race starts from New Plymouth and finishes at Brisbane.

We are sorry to lose the services of one of our Executive members Ray Wallace who is under notice of transfer to either Kataia or Turangi and our congratulations also go to another Executive member Brian Smith on his promotion to the rank of sergeant in the Police Force.

Just a word to anyone who is coming to our New Year Regatta. Accomodation at this time of year is always at a premium and very early application is essential and this also applies to the cat week.

NELSON

An old Logan-built keeler, *Rona,* was re-launched at Nelson recently. She foundered off the Kaikoura coast in 1967 and her present owners, Mr and Mrs Robert Burdon have spent the past year rebuilding her.

A 41 ft gaff-rigged cutter, *Rona* was built at Devonport in 1893.

Mr and Mrs Burdon have done little sailing and intend to keep to local waters for a while with an eventual trip across Cook Strait.

CANTERBURY

by Nick Tolerton

An interesting visitor to Lyttelton at the end of May was world roaming Roy Milford, in a sister trimaran to Nigel Tetley's 40 ft *Victress,* which capsized in the Atlantic a few hours before Mr Milford berthed in Lyttelton.

Mr Milford himself has never had any fears about his boat *Seafari* capsizing, and was anxious to learn precisely what happened to Commander Tetley's craft. Mr Milford told me that it is only in New Zealand and Australia that he has met suggestions that the multihulls are dangerous and prone to capsize.

Mr Milford's and Commander Tetley's Piver designs are from the same Great Yarmouth yard — Commander Tetley's was number one and Mr Milford's, launched in February 1965, was number 18 in the class from the yard.

Since *Seafari* was launched Mr Milford, a 40 year old Liverpudlian who worked in Nelson (N.Z.) before he got the yacht, has slowly cruised to New Zealand, taking a good look at the British Isles, Europe and the Mediterranean, the Caribbean, something of South America, and much of the Pacific, on his way.

His wife Betty, a New Zealander, and a Siamese cat Tinka, acquired in Spain, have shared the yacht with him.

The Milfords arrived at the Bay of Islands at Christmas, and during the winter they will be opossum trapping at Stewart Island with a friend, Neville Border, of Christchurch. They hold opossum hunting concessions for the southern half of the island, and will work the opossums until the animals lose their winter coats.

Mr Milford is unsure where they will be heading after that. "We never plan too far ahead. We like to live by ear. I don't like the shore. This is my home now, although my wife prefers the ports to the sea."

Seafari carries 550 sq ft of working sail. The boat's outboard is used as little as possible, for it is a glutton for fuel and *Seafari* can only carry enough to take it 20 miles.

Pleasant Point Yacht Club

This energetic Estuary club has built a stylish new clubhouse and reclaimed a

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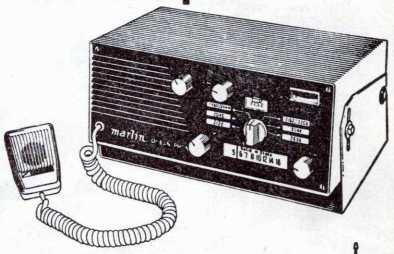

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considerable amount of land in recent seasons, and the completion of their new Jack Cropp-designed pick-up boat before next summer will boost their assets even more.

As yet unnamed, the boat was designed especially for the club for Estuary service — drawing merely 13 inches. Work on it has been done chiefly in the evenings, under the guidance of Don Nixon. The other leading lights in the project have been club commodore D. Ross, Derek Keenan, Malcolm Ross, and Dale Dunlop.

It is being built in the main clubroom, and — there are some fingers crossed on this one — there will be only a quarter inch to spare getting it out the door.

Early in June it was just about ready for the fibreglassing of the hull, which was to be done as a public demonstration by the Epiglass people.

For the statistician — the boat is 21 ft long, has 7 ft beam, and the roomy, self-draining cockpit will hold two P class boats. It will have a 10 hp motor.

Some time this winter the club hopes to remove the remains of the old clubhouse (the decrepit bottom floor still stands) and clear the land. More distant are plans for the concreting of the excavated second slipway.

The Pleasant Point club's second winter race, held in frustrating calm weather on May 2, really brought the curtain down on the 1968-69 season in Christchurch. C. Pierce in his A class catamaran *Scat* grabbed line and handicap honours without much trouble, in a fleet composed largely of Moths, O.Ks., and Cats.

P. Folter, getting the hang of his newly bought O.K. *Okere* was second on handicap, and third was E. Orange's Paper Tiger, which lacks any soubriquet as yet.

The first winter races were held on the last weekend of April. The Cock of the Estuary (catamaran title) went to Chris Metzger's *Belinda,* and A. and J. Britton in *Sunbeam* claimed the Arch Lamb Trophy for Sunbursts. R. O'Brien's *Haurere* took the Last Chance Cup for O.K. skippers. Bevan Clegg in *Katey* won the P class race and M. Hay in *Jacinta* won the Moth handicap race.

Moths and O.K. fleets look likely to be bigger at the club next summer, going on close season trading within the club.

P. Smith sold his O.K. to P. Folter, and S. Davenport's O.K. was bought by new member M. Richardson. B. Clegg has sold his P class and acquired an O.K., and M. Hay sold his P class to H. Smith. Hay has bought a Moth, and M. Ross, who has sold his Wagstaff Moth, is building a round-bilged Moth. No boats have been sold out of the club.

The 1968-69 season trophy winners were: P class champion C. Price; Catamaran champion B. Richards; Moth champion D. Dunlop; Sunburst champion P. Folter; Mathison Rose Bowl M. Ross; Junior Stacey Trophy D. Kerr; Senior Stacey Trophy N. Vincent; Ostler Cup M. Ross; Daniels Trophy (teams' race) R. Frost's team; Underhay Challenge Cup M. Ross; Queen Mab Cup L. Davenport; Clements Cup C. Anderson and D. Dunlop; Hayman Trophy (Ladies' race) Miss C. Van der Houwen; Kestrel Cup (crews' race) T. Folter; Piper Cup T. Folter; Pioneer Members Cup D. Dunlop; Aggregate Shield (P class) B. Clegg; Robinson Barometer (P class) B. Clegg; Tyson Cup (P class) A. Wormall; Woods Trophy (P class) M. Hay; Commodore's Trophy (P class) J. Hewitt; Schools' Trophy Shirley Boys' High School.

Banks Peninsula Cruising Club

The proposed slipway and haulout area for the Cruising Club at Lyttelton has fallen on hard times, reports Dr K. D. Drayton for the club.

The haulout area, so badly needed by the club, and at last supported by the Lyttelton Harbour Board, was going to prove just too expensive for the club to manage. The harbour board, working on the 'user pays' principle, had laid every penny of the expense involved in the project at the club's door.

With an annual rental and interest bill approaching $1000 a year, not counting salaries, club officials felt the burden would be too great, and at the last minute withdrew from a scheme which both parties felt should have been worthwhile.

It seems strange that football fields and cricket grounds obtain support from public bodies at very realistic figures, but yachting does not share this same support.

The haulout area would have been sited on the Eastern reclamation by Naval Point. just along from the Canterbury Y. and M.B.C.

Following the lodging of an objection by the club, a hearing has been set down regarding the 'industrial' zoning of land along the water's edge in the same area the haulout area was to have been.

The harbour board is going ahead with a haulout ramp at Naval Point reclamation, and the club would like to see the area adjacent to this kept for boating purposes in future, rather than seeing a row of factories right on the waterfront.

The building of several new boats is underway, and the owner of the ill-fated *Banika,* John Hefford, has bought the double-ender *Figaro,* a B class keeler, from the club's vice-commodore, Albert Stemmer. Stemmer intends to have a new boat built.

A number of A class boats are being built, but the shortage of moorings make it anyone's guess where they will be moored.

Stewarts Gully Sailing Club

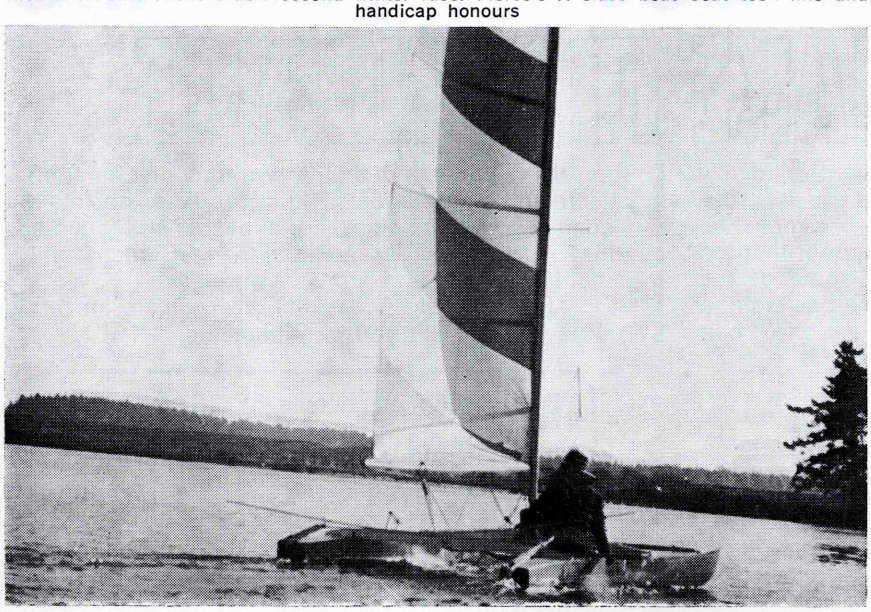
For the Gully club the 1968-69 season was the most successful since the club was re-opened several years ago. What's more, next season should be even better. It is likely there will be two more Cherubs sailing (at present there is one).

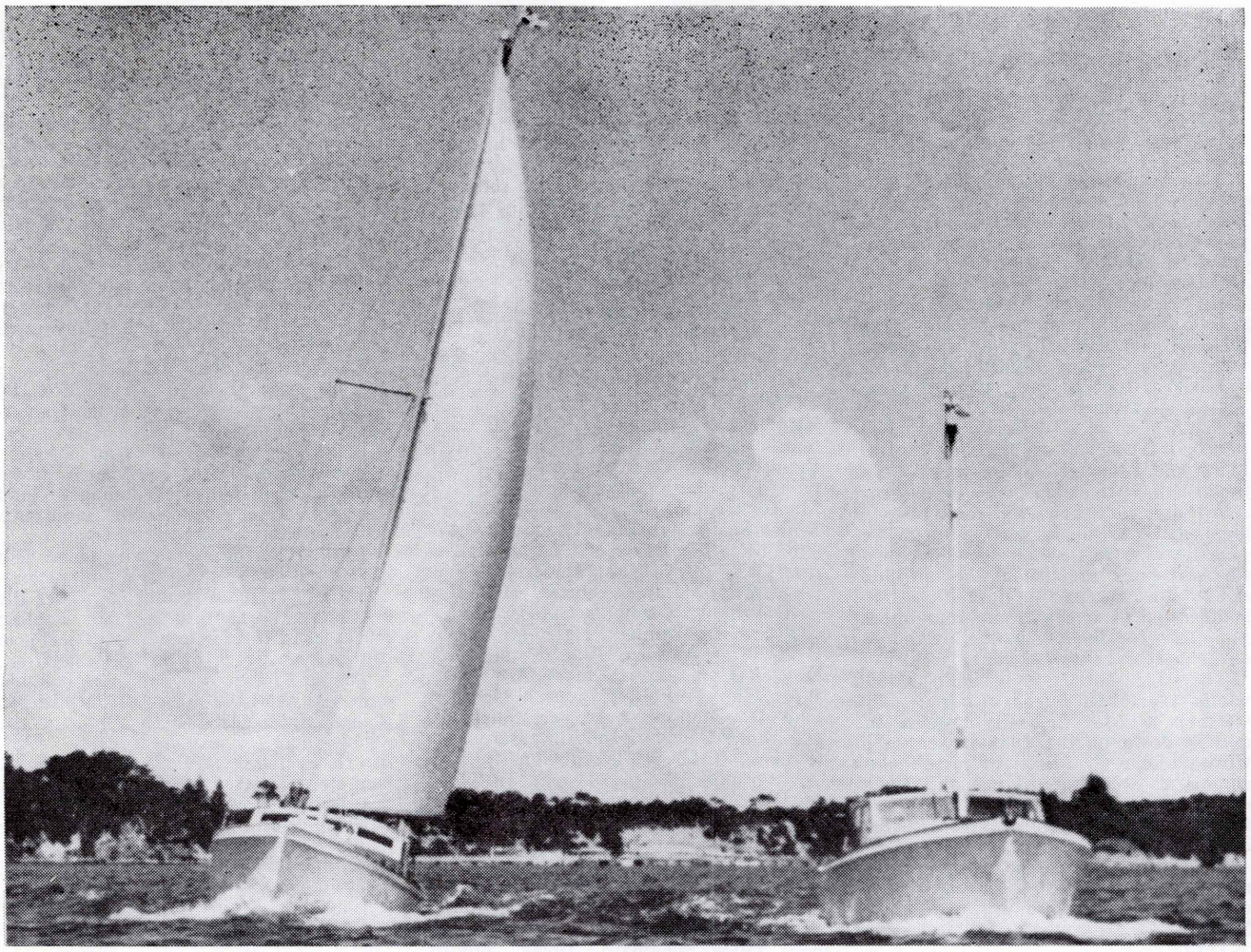
During the summer schoolboy Robert Smith was probably the club's outstanding helmsman, with the South Island Moth championship win his outstanding feat. Frank Wood waged some great battles with him, but Wood is one of the skippers interested in a Cherub for next season.

Here's how the club's honours were distributed this season:

J. Holland Trophy (winter race) *Sigma* G. Church; Gisborne Cup J. Platts; W. Prebble Memorial *The Menace* F. van Grunsven; S. Falkingham Cup *Miss Chiff* Mrs B. Church; F. Hooper Cup J. Platts; Memorial Trophy *Pruf,* H. Ravenstein; Coombes Anchor *Miss Chiff:* Holland Cup (Moth championship) *Bewitched* F. Wood; Christmas Trophy *Miss Moth* D. Howell; S.G.S.C. Marathon *Omega* R. Smith; Red Shield *Omega;* Spicer Trophy (Canterbury championship for N.Z. Moths) *Bewitched;* Committee Cup *Bewitched;* Lance Cup *Sigma;* Rowers Cup *Shelden* (Cherub) D. Rump; Parnham Cup *Pruf;* D. and P. McIntosh Memorial Marathon J. Platts; Ashby Bergh Trophy

Clarrie Pierce's catamaran setting the pace for the fleet in the calm conditions of the Pleasant Point Yacht Club's second winter race. Pierce's A class boat Scat took line and handicap honours





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(championship) *Omega;* Agnew Trophy *The Menace;* Priest and Boyle Trophy *Omega;* S. Hooper Cup *Omega;* Commodore's Trophy *Secret* L. Kettle; C. Brown Points Trophy *Sigma.*

With the exception of *Shelden,* the Cherub, all trophies were won by N.Z. Moths.

Canterbury Yacht and Motor Boat Club

The 'motor boat' in the Canterbury club's title indicates the club's interests extend a little further than those of most Canterbury yacht clubs, but looking at the club's social programme lined up for the months ahead makes me think they could well scrub their present title and call themselves 'Canterbury Sports Club' instead!

A golf match was scheduled for late in June, a follow-up to a "fishermen's" dance for senior club members. A day out in the snow (exact location uncertain) is tentatively decided for late in July, with a car trial and another golf match in August, and an indoor sports night, featuring darts, indoor bowls, and so on, in September! The programme is no doubt a tribute to the energy of the club's social committee. Who knows? — It may do something to condition yachtsmen for next summer too. It should be interesting to see if the men who star at the helms of yachts also do well in the car trial. There must be less leeway for error in this one than on a course on the water.

On a different side of club activities, a working bee at the end of the season saw work done on strengthening the main slipway, and some paint work touched up on the building.

The 1968-69 season trophy winners were:

Opening day race *Outburst* (Flying Dutchman) D. and R. Eastmond; W. J. Toomey Memorial *Caprice* (Flying Dutchman) G. Mander and D. Nixon; Norris Cup *Ra* (Javelin) C. White and B. Robertson; Kennett Memorial *Radiant* (R class) A. W. Shields and B. Taylor; Sutton Cup *Impulse* (Junior Cherub) P. Campbell and R. Moon; Varney Cup *Zenith* (O.K.) D. Hobson; C. M. Welsh *Kapai II* (P class) C. Price; Whitford Cup *Flying Mist* (Flying Dutchman) A. Thurlow and J. Sinclair; Avenger Cup *Pysche IV* (Javelin) C. Dann and D. Smith; Moller Cup *Tijuana* (Junior Cherub) K. May and A. Ruth; Coombes Anchor *Sea Bee* (P class) P. Butterworth) Priddy Cup *Bonanza* (Javelin) R. Norris and R. Bryant; Magnus Smith Cup *Outburst;* Sillars Memorial *Sundowner* (Javelin) C. and I. Smith; Foster Cup *Okaiawa* (O.K.) N. Vincent; Yvonne Cup *Teina* (P class) B. Bachop; Tuohey Cup *Caprice;* H. Brodie Memorial *Sundowner;* Club Cup *Zenith;* Sargentina Cup *Sprat* (P class) C. Wales; Tracy Gough *Caprice;* Miller Cup *Radiant;* J. Neville Memorial *Tijuana;* Henderson Cup *Moby Dick* (P class) K. Welsh; Hobbs Memorial *Cirrus* (Javelin) Mrs A. Burgess and B. Marriott; Norris Barometer *Belinda* A class cat C. Metzger; Rhind Trophy *Radiant;* Grove Meikle Memorial *Rana* (Junior Cherub) N. and G. England; C.Y. and M.B.C. Trophy *Vitesse* (P class) P. Lester; Fathers' P class race *Vitesse* G. Lester; Evans Bay YMBC Trophy *Giavelina* (Javelin) W. Beere and I. Bond; Psyche Trophy *Giavelina;* Beryl Stacey Memorial *Kestrel* (cat) R. Lloyd; McMaster Cup *Dibrucol* (International Moth) M. Selwood, Club Trophy for Sunday racing *Flying Mist;* Cording Memorial *Tijuana;* Commodore's Trophy *Toni* (P class) V. Nelson.

Pigeon Bay Boating Club

Hosting the South Island O.K. championship at Christmas and the South Island Restricted Moth championship in February were the highlights of a very successful summer for this club.

Club trophies were well spread, with the Kaucet Cup, the scratch contest for Restricted Moths, going to Bruce Goodwin (the club commodore) for the third time. Goodwin has always gone well in the fresh stuff, but this year he surprised everyone by his improved sailing in lighter winds. Handicap trophies went to Denis Blomquist, Wayne Radford, Don Hay, Jim Will, Des Hunt, Graeme Waghorn, and Sandy Waghorn.

At the club's annual meeting it was decided to alter the programme for the 1969-70 season. Instead of sailing just one race every Sunday, the club will be sailing morning and afternoon races on alternate Sundays.

This should ease the pressure on local members, who often find it difficult to race regularly during the shearing season, but, more important, it will make it attractive for Christchurch yachties to come to Pigeon Bay for a day's sailing. Last year Mel Selwood, Graeme Wilson, Owen Brown, and Murray Robertson sailed in Pigeon Bay club races more than once. Since the club is hosting the next national Restricted Moth championship, they are likely to be out at the bay even more often next summer.

Bert Murray now has a Sunbeam catamaran, and should provide good competition for Ian Smith, who will also be sailing a Sunbeam this year. Don Hay's Y. W. Diamond went on to the market at the end of the season — apparently he is going back to a motor sailer type boat. Don Fraser's 21 ft doubled skinned keeler is waiting for her lead to be fitted, and should be ready for the water about Christmas.

FA Flying Ant Class Assn.

by Tiller

We will begin our fitting-out by working on the hull, for here is our biggest task. How much we have to do will depend on the state of the existing finish. At all times when working on our Ant we should be thinking about weight. Very few Ants are under the allowed minimum of 110 lb hull weight and there is no speed to be gained from car-

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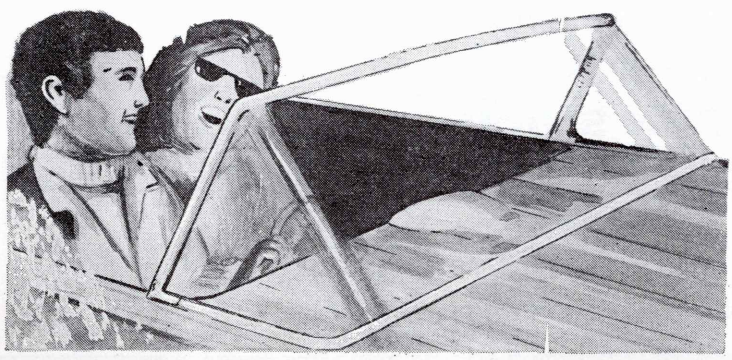

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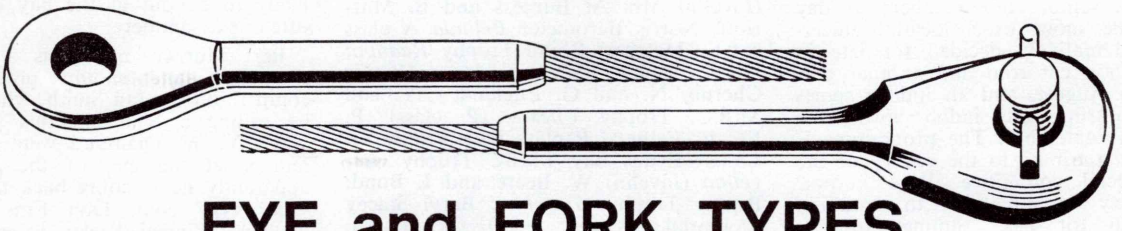

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rying excess. So we will be looking to save every ounce we can. Now the paint needed to repaint your hull will add about five pounds, so before we start putting more on, we must take off the old stuff. This should be done even if the surface is fairly good. I shall describe the steps needed to completely refinish a hull in poor condition. If yours is not in this condition you can perhaps skip some of the steps described.

All fittings should be removed and if possible take off the splashboards. In some cases the splashboards will have been glued on or fixed in some other way which makes their removal impossible. In this case we will just have to work with them in place. On the topsides and bottom the fastest way to remove the old paint is probably with wet and dry paper. Use a fairly coarse grade, about 120 grit, with plenty of water and with a sanding block. I have found a block of polystyrene plastic as used for buoyancy is ideal for this.

When most of the paint has been taken off, wipe off and allow to dry, then look for any scratches, "dings" and dents which need to be filled. There are many fillers on the market and used properly they will all do a good job. They range from reinforced plastic to wood dough and each has its own characteristics, and for each type there are folk who say that the one they use is the best. I am not going to recommend any particular type but I will warn you that they all have one thing in common, they all setttle or shrink as they harden. So when filling imperfections, leave the filler high so that it can be sanded off flush when properly set. Do not be in too much of a hurry. Fillers usually take longer than you think to fully harden. The filler must only be applied to clean surfaces, so scratches and cracks should be cleaned out with a brush.

With all imperfections that can be seen filled and sanded off, a coat of undercoat should be applied. The type of undercoat used should be that recommended for the particular finish coat you intend using. When this coat is perfectly dry it should be sanded off with about 230 grit paper and again use plenty of water. You should now have a smooth matt surface all over. If not, the filling, sanding, undercoating, sanding routine must be gone through again. The quality of the finish coat depends on the surface it is applied to. It will accentuate any flaws rather than cover them. It is always better to apply several thin coats rather than fewer thick ones. Don't have too much paint on your brush, lay it on, spread it out then leave it. Do not try to cover too big an area with one brushful. Aim to put a thin even coat of paint on but don't over brush it. Modern gloss enamels level themselves out remarkably. Between coats sand with fine wet and dry paper, about 320 grade. Use plenty of water. Be sure that each coat is dry before sanding and that the surface is clean and dry before the next coat is applied. Try to apply all finish coats in an atmosphere as free from dust as possible. With the finish coats applied as well as we are able, we will leave the topsides and bottom and turn the boat right way up and work on the deck and cockpit. The procedure is as before but if your decks are varnished they must be taken right down to bare wood before recoating. It is not possible to make a good job of refinishing varnish otherwise.

Inside the cockpit is probably the most difficult part of the boat to refinish. Frames, bottom battens, and backbone make a lot of awkward angles and corners. I know of no easy way of getting the old paint off these. The careful use of a hooked scraper or pieces of broken glass will help, but the main tool will have to be sandpaper in coarse grades. The aim here, as before, must be to get a good surface before you put the paint on. Paint will only accentuate imperfections, it won't cover them.

The centreboard and rudder should be worked on at the same time as the rest of the boat and the same degree of finish aimed for.

Spars should have all fittings removed and be sanded to remove all old varnish. Look for any cracks or splits, and glue them up before re-varnishing.

When you are replacing the fittings on your boat make sure that they are properly attached. It may be necessary to slightly reposition them to get a secure hold rather than put the screws back into the old holes. However if the timber is sound slightly larger gauge screws will do the trick.

I have not so far mentioned a very important accessory to your boat — the cradle upon which it sits while you rig it. It may be that your cradle is permanently attached to your car trailer. That is quite satisfactory for a Flying Ant but it is better if it can be lifted off the trailer and put on the ground. However, whichever type you have it must fit the bottom of your boat. The best place for the cradle to support an Ant is directly under the fore and aft bulkheads at each end of the cockpit, but providing that the cradle fits the hull accurately from keel to chine it will support the hull adequately in other places. The cradle should of course be padded. Old carpet is often used for this, but it must be watched to be sure that it does not get shell or grit imbedded in it for this will scratch your carefully applied finish. I have left the cradle to last in these notes but it should really be the first thing renovated. It will make your work so much easier.

All enquiries should be addressed to Tiller, c/- P.O. Box 12, Howick.

Trailer Sailer Association

by Publicity Officer

This month is probably a good time to re-assess the future of the Trailer Sailer type of yachting both in N.Z. and overseas. What started as a family affair with picnics and social racing has now developed into a thriving business for designers and suppliers and in Australia the Trailer Sailer boom has evolved into something of a "My T.S. is better than yours" war. The racing of the Hartley 16 class T.S. in Australia and New Zealand has become highly efficient and these aspects of pride and competition can only indicate progress. In N.Z. the T.S. Association, has, almost from the start, catered for every type of Trailer Sailer and if you as a reader of these notes are an owner of a Blue Peter, a Hartley 14, 16, 18, or 21 a Skylark or any other design of Trailer Sailer you could perhaps ponder on the advantages of membership in an assocation that caters for your racing, cruising and social interests. Having done so you could then apply to N.Z. secretary Noel Turner, 37 Walters Rd, Mt Albert for membership. Trailer Sailers are now established in many different countries and the possibility of international contests are not too remote. The annual meeting of the N.Z.T.S. Association will be held at the end of July at Richmond club rooms, Westhaven and all interested are welcome to attend. Phone secretary Noel Turner, Auckland 605-626 for exact date.

Auckland division

The points trophy was finalised on closing day with John Stubbs' *Jaunty* winning on the countback from Dick Gross' *Windana*. Twenty-five boats raced during the season and the greatest number in any one race was 14.

All those who are building Hartley 16s should know that boats must be built to the plan that is registered with the Auckland Yachting Association, and boats must also come within the tolerances laid down by the N.Z.T.S. Association. Sails too must come within certain measurements and anyone who requires these measurements should apply to T.S. secretary Noel Turner or the publicity officer.

Waikato and Wellington

Things have quietened down on the water at this stage of the year but in many garages and basements lights are glowing over all sorts of T.S. shapes. For Waikato readers information can be gained from Graham Downes Ph 848 Gordonton and Wellington's secretary Laurie Powell Ph 757-664 will put anyone interested on the right track.

Writing from the far south Doug McDougall advises that at Invercargill there are four Hartley 16s, one 21 and an 18 under construction. Doug was due to take a trip to Australia in May and we can look forward to hearing from him on T.S. activities over there.

For information on T.S. affairs please contact the publicity officer, P.O. Box 127, Pukekohe.

Diamond Dealings

by Prospector

For the benefit of interested readers the following are a few details about the Yachting World Diamond and its history.

Overall dimensions are:- length 30 ft, beam 6 ft 9 in, length waterline 24 ft, displacement 1 ton, draught 4 ft 3 in sail area, mainsail 154 sq ft, genoa 159 sq ft, spinnaker 450 sq ft, jib 68 sq ft (optional).

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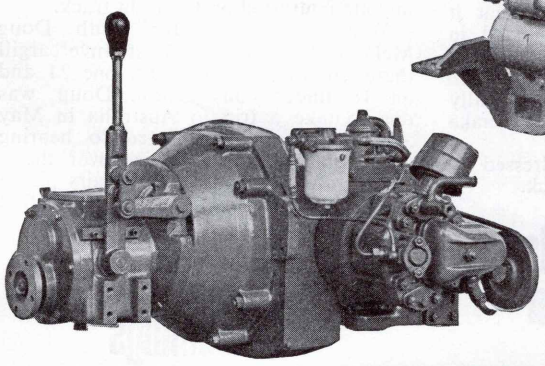
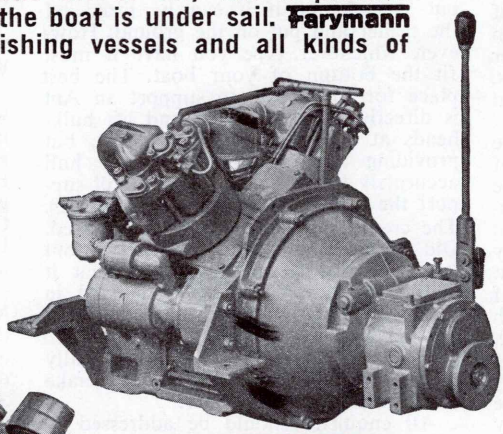
Quality, reliability, safety, compactness, economy plus many exclusive design features are built-in in every Farymann Diesel.

The extremely compact construction of Farymann Diesels give minimum overall length and height, thus providing the maximum usable horsepower in minimum space . . . Direct injection combustion method gives very efficient engine performance with low fuel consumption . . . Decompression device and lever facilitates easy hand starting . . . The grey cast liner and water jacket are zinc plated to give full seawater protection . . . the water jacket is simply dismantled for cleaning . . . thermostat controlled cooling system ensures correct engine temperature under all conditions . . . the well dimensioned and sturdy gearbox (ratio 2:1 or 1:1) has a positive neutral position allowing the propeller to rotate freely when the boat is under sail. Farymann Diesel is the ideal auxiliary for yachts, pleasure craft, small fishing vessels and all kinds of work boats.

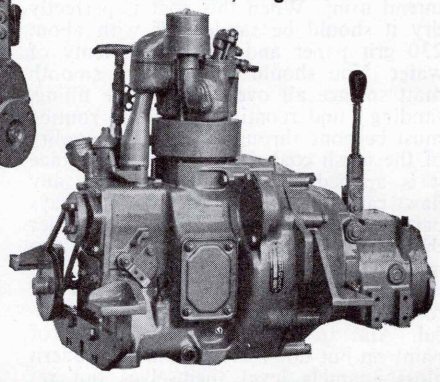
BELOW Farymann "LA"
1 horizontal cylinder; 9 B.H.P.; 2500 r.p.m.; 36 cu. in. displacement; 181 lbs bare weight; 3 HOURS per gallon; length 28", width 27", height 13".





ABOVE Farymann "PW"
2V design; 20 B.H.P.; 2500 r.p.m.; 78 cu. in. displacement; 400 lbs bare weight; 1.4 HOURS per gallon; length 32"; width 22"; height 22".

BELOW Farymann "A"
1 vertical cylinder; 9 B.H.P. : 2500 r.p.m.; 36 cu. in displacement; 176 lbs bare weight; 3 HOURS per gallon; length 28", width 22", height 22".



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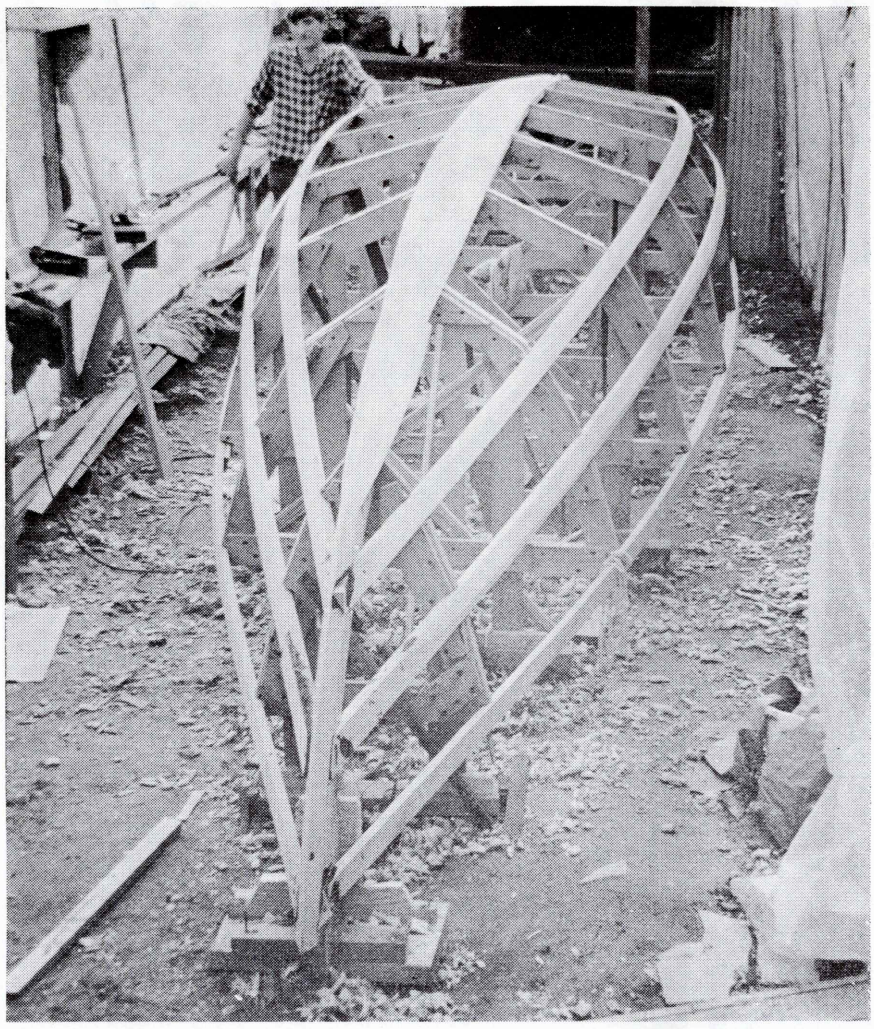


Peter Nicholson's new Diamond class in its early stages at Howick

The idea for the boat originated in England in 1960 when the editors of the Yachting World magazine sought ideas for a reasonably priced yacht for national and international racing. Main requirements which were fulfilled in the final design chosen were low cost and high performance. The boat was designed by Jack Holt and the first prototype displayed at the national boat show in London in January 1961. Since then the boats have really gone ahead, particularly in Australia where in 1966-67 there were 100 diamonds. This figure has since increased considerably with representation in every state.

All characteristics of the boat are similar to smaller plywood yachts with the thrill of planing experienced in approximately 20-30 knot winds. In the most recent racing, the winter racing with Akarana, *Talaria* finished in ninth place overall. She was unable to match her bigger sisters in speed downhill due to their larger extras. On windward legs performance was greatly improved particularly if the breeze freshened. *Shillelagh* also raced, but was rather severely handicapped by gear failures.

Anyone genuinely interested in building and who would like to inspect the boats further contact — Alex Eagleson, Ph 602-185 or write to 169 Dominion Rd, Auckland 3.

Ferro-cement Marine Promotion Association

by Public Relations Officer

Alan Wallis in his 44 ft ferro cement R.O.R.C. type yacht *Shi-Bui,* and Dennis Bailey in his 33 ft ferro cement motor sailer *Pharaoh* took part in the trip to Suva, Fiji.

Shi-Bui raced, but *Pharaoh* just cruised. She left Whangarei on the same day as the race fleet left Auckland. This gave her a start on the race fleet and she was passed by the leaders when half way to Suva. Her daily runs of 92, 100, 140, 90, 75, 130, 130, 120, 130, and 115 nautical miles show, that an amateur built ferro cement motor sailer costing a total of $3,400, and taking one man one year to build, can make reasonably fast overseas passages in comfort. She had no spinnakers or extras of any sort, and took time off to fish and inspect lengths of barnacle covered timber encountered on the way.

A piece of 3 x 2 timber covered with barnacles had crabs as big as a man's thumb nail on it. This timber was surrounded with fish, and bird life even though it was over 500 miles from land.

The author's greatest impression of being at sea in a ferro cement yacht was the absolute silence down below, the absence of leaks and drips inside the boat and the absence of condensation. Even when a pressure cooker full of compressed steam was released inside the cabin there was no condensation on the ferro cement cabin top and cabin walls.

Failures

Commercial water tank paint sealer was used inside *Pharaoh's* water tanks and it made the fresh water undrinkable. The old sailing ship treatment for inside a steel water tank was a cement wash, so it is pointless to risk ruining a ferro cement tank by painting it on the inside.

A stem head fitting bolted to the deck of *Pharaoh* started to lift off the deck, so she returned to Whangarei where a ¼in thick steel chain plate was bolted down both sides of the stem, and the top bent over and welded to the stem head fitting to hold it securely in place.

Shi-Bui has a metal cap which covers the deck, and both sides of the stem, and her stem head fitting proved satisfactory, but her stanchions were let into flat steel plates, which were in turn embedded in ferro cement in the deck, and these proved troublesome. When a spinnaker boom dropped on the handrails the stanchions bent sideways, and lifted the steel plates up through the ferro cement deck. Alan Wallis intends to make these plates bigger and weld them to the steel reinforcing in the deck, but it is being proved that fittings should be bolted to the outside of the ferro cement and a pad placed underneath the deck with bolts running through the fitting, ferro cement and timber pad.

It must be admitted that *Shi-Bui's* hand rails were subject to considerably more strain than normal, owing to the difficulties of rigging their self steering and laying alongside the wharf at Suva.

Successes

Paper left in the bilge of *Pharaoh* stayed dry, as did clothes stored against the bare ferro hull.

Road marker paint proved satisfactory but was too slippery on *Pharaoh's* decks so the decks were repainted, and sand scattered on the wet paint. Pastel shades of Dulux Spruce inside the hull and cabin proved satisfactory, as did Coldrex on the outside of the cabin, and hull. Coldrex is the paint used on concrete garage floors, etc.

All exposed edges of ferro cement inside the hull were covered with split polyurethane piping, and this saved many bruises.

Sheet perspex bedded in plastic with plywood frames bolted direct to the win-

"HARTLEYS LATEST"

PLANS FOR CONCRETE BOATS

Plans complete with construction details, building procedures, cement mix ratios and **full size** patterns of stem, stern, frames, etc.

'TAHITIAN' 45'3" MOTOR SAILER

LENGTH 45' 3" — BEAM 13' 6" — DRAUGHT 5' 9" or 6' 9"
FREEBOARD FORWARD 5' 6" — FREEBOARD AFT 3' 8"
SAIL AREA: SLOOP RIG, 1010 sq. ft. KETCH RIG, 1066 sq. ft.
Cost of materials for hull and deck: $650 in N.Z., $750 in Australia
Plans: N.Z. $180; Australia $216; Sterling £108; U.S.A. $256

'SOUTH SEAS' 38'0" MOTOR SAILER

LENGTH 37' 9" — BEAM 11' 3" — DRAUGHT 4' 9"
SAIL AREA 665 sq. ft. SLOOP OR KETCH RIG
Two alternate accommodations for eight or 10
Cost of materials $350 Hull and Deck
Plans: N.Z. $114; Australia $138; Sterling £69; U.S.A. $165

'QUEENSLANDER' 33'0" MOTOR SAILER

LENGTH 33' 3" — BEAM 10' 9" — DRAUGHT 4' 9"
SAIL AREA 587 sq. ft. SLOOP RIG
Three alternate accommodations for four to six
Cost of materials $300 Hull and Deck
Plans: N.Z. $96; Australia $114; Sterling £57; U.S.A. $135

'TASMAN' 27'3" MOTOR SAILER

LENGTH 27' 3" — BEAM 9' 0" — DRAUGHT 3' 9"
SAIL AREA 362 sq. ft. SLOOP RIG
Accommodation for four or five
Cost of materials $200 Hull and Deck
Plans: N.Z. 78; Australia $90; Sterling £45; U.S.A. $108

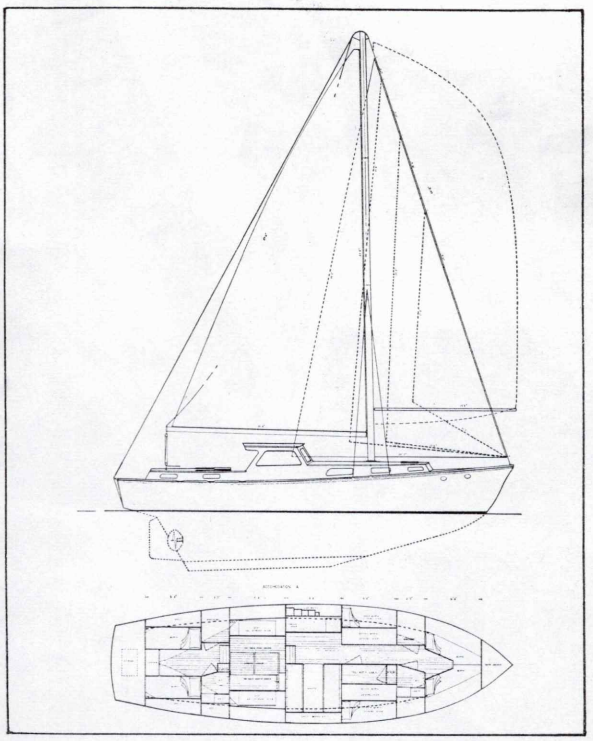
COASTAL 38—38'0" CRUISING LAUNCH

LENGTH 38' 0" — BEAM 12' 0" — DRAUGHT 3' 6"
FREEBOARD FORWARD — FREEBOARD AFT
DISPLACEMENT 10 TONS
Power 100 hp diesel with 2 to 1 reduction. A 100 hp petrol engine would need a 3 to 1 reduction
Cost of materials, hull and deck: $450 N.Z., $550 Australia
Plans: N.Z. $120; Australia $144; Sterling £72; U.S.A. $171

HARTLEYS BOAT PLANS

announce a change in the design of engine beds and bow fittings for "Tasman", "Queenslander", "South Seas" and "Coastal 38". Plan owners please write for free plan amendments. Box 30094, Takapuna.

TAHITIAN



QUEENSLANDER SAILING

"Queenslander" amateur built by Denis Bailey in 12 months spare time work for a total cost of $2500. Hull was professionally plastered by E. V. Sayers, but Denis plastered the deck, cabin, cockpit and bulkheads himself.

Plans available from

HARTLEY'S BOAT PLANS

BOX 30094, TAKAPUNA NORTH, N.Z., and

SEA SPRAY

360 DOMINION ROAD, BOX 793, AUCKLAND

KITSETS FOR HARTLEY CONCRETE MOTOR SAILERS: South Seas 38ft, $295 including plans; Queenslander, 33ft, $275 including plans; Tasman, 27ft, $225 including plans. Kitset includes frames, stem, stern and plans. Frames are fabricated tot shape and ready to erect. Chain plates, mast fittings, steel stringers, mesh, etc., also available. Book on concrete boat building, $1.25 post free. Phone 495-414 by day, 482-777 night. Box 30-094, Takapuna North.

dow openings were waterproof with no drips, and the perspex stayed free of condensation at all times.

Ferro cement cockpit seats were hard and unyielding, but rubber cushions, and a blown up rubber ring made life softer.

At sea a ferro cement hull is quieter than any other type of construction. There is a complete absence of the crashing, and banging associated with conventional yachts in rough water. The loudest noise in *Pharaoh* in rough weather was the metal fuel tank banging and booming, as the diesel fuel surged back and forth inside it.

Pharaoh's cement water tanks of equal size were quiet, and could only be heard by the man sleeping directly over them.

Pharaoh's motion at sea was not sufficient to keep automatic Omega Seamaster watches going, so if you rely on automatic time pieces for chronometers you would need to shake them daily, because a ferro cement hull's easy motion will not self wind them.

This Association wishes to thank *Shi-Bui* and *Pharaoh* for demonstrating that seagoing yachts built by their owners can make long overseas passages, even when let down by mechanical failures. *Shi-Bui's* rudder failure was caused by an engineering keyway failure which goes to show the more you have of your boat from ferro cement the less trouble you will have.

Pharaoh was to cruise the Fiji group and New Caledonia, before returning to N.Z.

Colin Philps the owner-proprietor of the Trade Winds Hotel, Fiji was contemplating building an 82 ft steel ketch from steel, but he listened attentively, and was obviously impressed with the prospect of building it in ferro cement. We traded publicity. He demonstrated to me the obvious advantages of the deep water moorings provided for yachts by the Trade Winds Hotel. You tie your yacht to the verandah rail, and walk straight in to the Trade Winds dining hall. I endeavoured to impress him with the wisdom and financial benefits of building his boat in ferro cement, and assured him that any inquiries addressed to the Association would be answered immediately by airmail.

We have recently received another letter from Mr A. J. Reid who says —

Dear Sir,

While the new design of R. T. Hartley's will no doubt rate at 22 ft or under I feel that this design should be referred to as an R.O.R.C. type design rather than a One Ton Cup boat.

The potential of this design, like its final rating, is as yet unknown. Amateurs with varying degrees of skill and accuracy are going to build to this design and after seeing some of the efforts of these keen but not too accurate craftsmen, I would say that the end result of their labours could receive a rating over 22 ft.

This boat, regardless of its rating, will provide some good competition in offshore racing, but as most people building concrete boats do so for economic reasons, the expensive sails and gear needed to compete in anything as costly and competitive as One Ton Cup races seems out of the reach of most, and without this gear they could not stand much chance. The placing of a name such as One Ton Cup on these boats could cause owners some embarrassment if the performance did not match their expectations, and once again people will ridicule the type of construction as the reason for possible lack of performance when such ridicule is not deserved.

Let us concentrate on getting better finishes on R.O.R.C. boats and leave One Ton Cup racing to those who think they can afford it.

—A. J. REID.

Javelin Class

by Publicity Officer

Heavy Javelin for'ard hands appear to be in demand as Dutchman hands and both David Hutchinson and Murray Ross will be departing from the class to sail with Helmer Pedersen and Jim Mackay respectively. Mike Leary, last year's Auckland champion, has teamed up with Roland Lennox-King and will be sailing the FD *Ondine* next season. With the depleted Dutchman fleets of recent years pressure has been put on many leading Javelin exponents to bolster the fleet and it is to be expected that a number will take the step in the near future.

A number of Javelins are being revamped this winter in an effort to gain more speed. Experiments on metal masts have begun to bear fruit and performances have improved in proportion. It now seems obvious that the standard Javelin rig of the past is about to become obsolete. One rumour has it that a Javelin will be seen next season with a tapered, 1¼ in diameter mast. When one considers that the old wooden masts were nearly four inches in diameter it becomes obvious just how much development and experiment has been taking place.

The Royal Akarana Yacht Club has offered to run the next Javelin Interdominion to be held in early 1971. It would be a tremendous boost to the class to be under the auspices of a "Royal" club and it is hoped that the offer can be accepted.

The new rules should be out in remit form very shortly and it is expected that these will put an end to the minor squabbles which have plagued us in the past.

R Class Squadron

Wellington

The Wellington fleet of R class yachts is steadily increasing, there being 19 starters at the Easter Regatta and season's end. With four more boats being built and others being rejuvenated we look forward to the coming season. The standard of sailing is steadily improving and the top eight boats are really pushing each other along.

Bill Hayman and Don Smith the "Alka Seltzer Kids" dominate the heavy weather races in *Reprimand* by sheer strength, skill and avoirdupois as they did at the national contest finishing third after losing points in a disqualification. Gary Fussell in *Rinegolde* went well and excelled himself handling the new boat with skill in all weathers to finish fourth. The other two Wellington boats *Voodoo II* and *Regent* made too many errors and finished further back in the field.

The Founders Trophy was won convincingly by *Reprimand* and this series of races around the clubs give all interested a means of comparing boats, respective classes, and performances. Mickey Pimbrey and Terry Brandon in *Mirage* apart from *Reprimand* in heavy weather, have proven to be top boat generally, winning many races and fastest times. Ivor Bates in *Fiesta* sailed some fine races too, when his crew turned up.

Morrie Turner in *Ngaio* (a *Reprimand* design) found his new hull to his liking and it certainly startled the natives to see him up front or alongside in a blow after two poor seasons. They tell me that when he puts his better half over the rail in the heavy going his crew responds by having a good sleep to save energy for the next kite run.

Beta, Keith Tourell is still a threat and if it wasn't for his dedication to the school children he'd really do something.

Dean McGaviston and Brian Goldfinch are learning to sail *R Tistic* the hard way but won the Nash Trophy by earnest endeavour. We wish we had more triers like these lads and all our Squadron members wish them success next season.

Cosmos and Eric Dodds take to the water for a wash down about twice a year — or to show his independence, we're not sure — but we are sure that he can push it along when he's allowed.

The Easter championship was won by Dennis Davies in *Repeat* after a hard tussle with Mickey Pimbrey in *Chamois* and Garry Fussell in *Rinegolde,* all finishing within 100 yards. *Reprimand* lost her mast while in the lead at the weather mark on the first round.

Mirage lost her aluminium mast in the morning race while "Prof" was ballet dancing on deck around the mast somewhere. He's off back to Australia where they have five in a crew to keep him in order.

Rudy Doombas now owns *Tina* and is introducing new-comer Frand Mead to the intricacies of R's and sailing — Good Luck Rudy.

Alan Bulleyment has a Moth man, Derrick Warnes, to spin a cocoon for him up for'ard in his new "Hurricane Hal" design. There is a lot of talk and Hal Wagstaff going into their double rounded no chine, mast and a half, schooner rigged R — we think.

Another two newcomers to the alloy mast, bendy boom, clinker ply R are Michael Julian and Joe O'Leary. Don't mistake the kite pole for a shillelagh Mike. Mickey's old sails will adorn this craft — don't tell his wife it's a secret.

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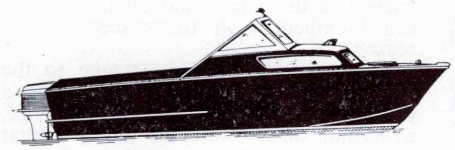

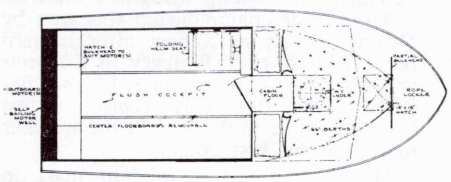

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Australian Hartley Trailer Sailer 16s preparing for a race during their national championship in Victoria

Two Z class boys have graduated to R's and sail *Amigo,* Bruce Steele's old boat. They enjoyed sailing at Easter and we look forward to seeing them improving each race.

Roger Knightly has is *Mislead* back again and showed flashes of brilliance which we can expect next year.

The national contest is to be held at Picton on 24 to 27 January and the cost of car and trailer with two boats is $44, so it is not prohibitive. The Squadron secretaries should have a list of the accommodation offering so book now, have a holiday in the South Island and sail in holiday spirit. We in Wellington look forward to meeting old friends and new at this next Leander Trophy on a new course and in strange waters.

Flying Fifteen Forum

by Cimba

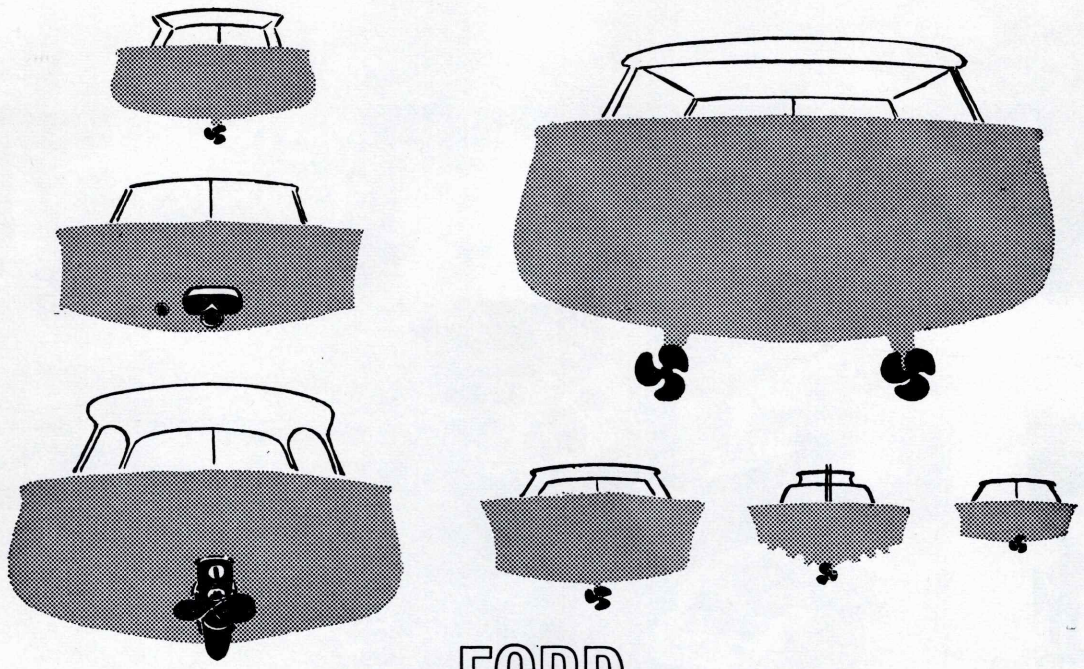
From Canterbury we hear that Ian White has been elected their new secretary as Harcourt Gough will be away in Australia for two or three years furthering his career as a professional engineer. His boat will be stored pending his return. Gordon Moor is still fleet captain, and, I believe, undisputed master of the Flying Fifteen racing in Canterbury, although on a couple of occasions Nelson Tillman was able to beat him to windward, but lost it again off the wind. The rest of the fleet are very evenly matched.

Timaru may be the next centre to have Flying Fifteens. We hear that *fflurry,* late of New Plymouth has been sold there, but as yet we do not know to whom. We have also received enquiries from a Timaru chemist for information regarding a Fifteen. This should be an ideal boat for Timaru with its breakwater harbour for launching and retrieving, and plenty of water outside, under conditions which should make the added safety of the Flying Fifteen keel highly desirable. If the South Island fleets continue to expand, perhaps one day we may be able to hold a real New Zealand national championship event with all fleets competing. With roll-on ferries between the two islands, this line of though must be encouraged.

Latest news from Auckland is that John Webber is back in Fifteens again after a short spell in the Diamond class. I am sure he will enjoy being back in the fold again and will be welcomed by all. Over the years John must have owned more Fifteens than any other Fifteener anywhere. If there is someone anywhere who can challenge this achievement, just let your national secretary know about it, as the matter should be recorded.

On a recent trip round the North Island, your secretary and his wife were able to meet fellow Fifteeners at each place they visited. It was most interesting in Rotorua to meet Dick Cooper who is a member of the Medway Fleet in Great Britain, and he was able to enlighten us on a few facts about the class in the U.K., including the information that the top boat in England uses a wooden mast, and that most boats there are moored out during the year. Also that U.K. members seem to care more for their sails and treat them with loving care, much more than we do over here.

In Tauranga we saw Bruce Elder's new boat just about ready to come off the mould, and a very neat job it appears to be. Part owner of this boat is Tom Maltby who will use the boat for cruising mostly, on Lake Rotoiti with his family, while Bruce Elder and his crew



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will use it for racing. This is the same system as was used by them with *ffifi*, their original boat.

In New Plymouth Peter Woofinden is building a new boat using only two skins of $\frac{1}{8}$ in white pine, the whole object of this is to keep the weight down to the minimum. Most of the New Plymouth boats use special beach trailers very low and without springs, just putting the boat on to a road trailer to go any distance, this minimises the rust hazard. Peter is hoping to build a trailer for the new boat so that the beach trailer can fit into the road trailer and the latter never need go into the water at all. This is an excellent idea if it can be worked out.

At Wanganui a very interesting hour was passed at Mr Kendrick's plastic factory where we saw just how fibreglass shells are made from the mould, and saw another new fifteen just about ready for delivery. We spent an interesting evening with Brian Armit and learnt that his boat is now as good as new again after his nasty experience last season. They removed most of the outside skin and replaced it with fibreglass so it is hard to say if it is a glass or wooden boat. Another interesting point is that most of the Wanganui boats are going back to end sheeting, while the rest of the country is going the other way, to centre sheeting. Which is right, I wonder?

There are still a few members who are unfinancial in some fleets, and if they are looking forward to receiving a year book they would be advised to let their fleet secretary have their subscriptions right away. Any unfinancial member who is not a member of any fleet should send his subscription direct to the secretary at 9 Thistle Street, Napier.

Hartley Trailer Sailer 18 Boat Owners Assn.

by Publicity Officer

The Australian Hartley T.S.16 Association report that they held their N.S.W. State championship at the Greenwich Sailing Club course in Sydney.

Bill Gamble in *Trump* was defending his N.S.W. championship after holding it for five years, but this year the winner was Jim Allen in *Avenger*.

At the end of the state series the best five boats issued an open challenge for a teams or an individual match race against any other stock Trailer Sailer on the market, whether they be plywood, or fibreglass. The Association felt that claims made by other Trailer Sailers were not valid unless they came out on the water and proved themselves around a course. As there were only twelve seconds separating the first five Hartley T.S.16s in the tune up races for the championship I would say these five boats would be hard to beat.

Norm Brown's Nereid, which won the 1969 Australian national Trailer Sailer 16 contest

The Carrum Sailing Club on the East Shore of Port Phillip Bay, Victoria was the site for the Australian national championship which was won by Norm Brown in *Neried*. The outcome of this series was in doubt right to the last, and the wind strength varied from nothing to 25 knots.

It is worthy of note that five boats were trailed from Sydney to Melbourne to contest the series, and other boats came from Adelaide.

The designer of these boats, Richard Hartley, attended the national championship, and there is no doubt in his mind that the Australians can master the art of getting these boats sailing faster than any country in the world.

Cherub Class Owners Assn.

by Publicity Officer

At the last meeting of the CCOA, considerable discussion centred on publicity and the 1970 World Cherub champs. The former subject received a good airing and some of the ideas expressed at the meeting will, I hope, be demonstrated in a visible form shortly. In the meantime however I am pleased to record that since Easter we have had some contact with Cherub sailors in Thames, Napier, Horowhenua, Dunedin, and Wellington, as well as Auckland.

The latter topic prompted the formation of a finance sub committee to raise money for the World champs. They have a list of some of the larger New Zealand firms who export to Australia and who (hopefully) may find it profitable to financially assist the New Zealand team. We will watch their efforts with great interest. The members of this committee would, I am sure, welcome help and ideas.

There was also discussion of the points made in Napier about the provision of boats by the Perth Cherub fleet for the World champs. Joe Felton has now sent a letter asking for details. To some extent he was anticipated however because a few days later Basil Wright (Cherub Class International Association President) rang to say that 10 varnished plywood Mk VII hulls, down to minimum weight, are waiting for the N.Z. and U.K. contingent. He also said that fittings will be installed if required and if the contestants like to send over a deck plan showing exactly where the fittings are to go. Rudders, centreboards, and tillers are of course supplied as well, and insurance will be arranged. Crews will have first option on buying the boats after the contest. Joe Felton is still trying to organize travel arrangements but it seems as if the team will have to leave on Boxing Day 1969.

During the C.C.O.A. meeting concern was expressed that some young chaps may be discouraged from moving into the Cherub class because of the difficulty of finding good second hand boats. Even more unfortunate is the fact that professional boatbuilders generally find it uneconomical to build a Cherub at a reasonable price and therefore new boats are often unavailable unless one builds them oneself. I would suggest, as did my predecessor, that if you want to buy a Cherub or if you have one to sell, write to the CCOA Publicity Officer who will try to help you.

In this connection I believe that Steve Marten is selling *George* and also has the plans of *George* for sale at $10 a set. If anyone is interested I am sure he would be delighted to hear from them.

While I am still discussing the meeting it might be interesting to relate that our vice president, Dave Woodroffe, sent us a postcard from Suva in lieu of an apology. Apparently he had been doing some naval research in connection with the Auckland to Suva race.

Finally, Joe Felton revealed that he has Cherub No 1 sitting in his basement. The historic importance of this epochal vessel cannot be doubted. I believe it is for sale but surely we should do our best for the old lady and have her fully restored and cared for.

North Shore champs

Steve Marten and Peter Nees collected their fair share of trophies this season. The North Shore Cherub champs were sailed at Murrays Bay during the spectacle and confusion of the power boat races and the start of the Auckland to Suva yacht race. *George* won handsomely in the light to drifting conditions. *Crescendo* was second and *Little Dipper* was third. The boys in *Little Dipper* did very well and have been improving rapidly. They will probably be right among the leaders next season.

Around the fleets

The weather since Easter has not been very exciting in Auckland. Many yachties are now pounding around the football fields and as yet there has been little winter racing. The Auckland fleet hopes to get back in the water by early September however, in order to work up for the world champs. Somewhat similarly the Napier fleet intend to hold three races each weekend throughout the winter so that the crews of *Mecca* and *Serendipity* will get plenty of practice.

During a visit to Wellington at Anzac weekend I called round to Muritai Yacht Club. Apparently Geoff Stagg is now

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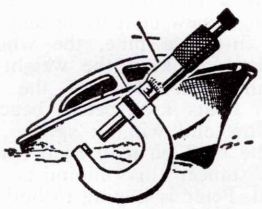

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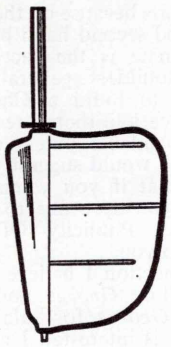

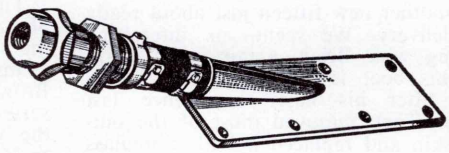

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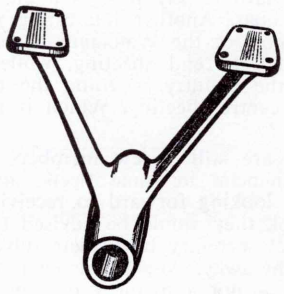

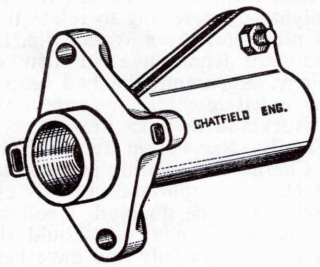

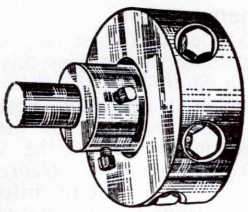

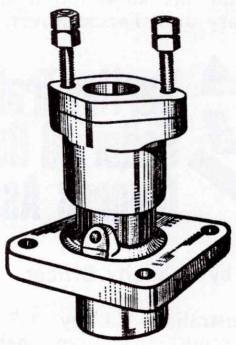

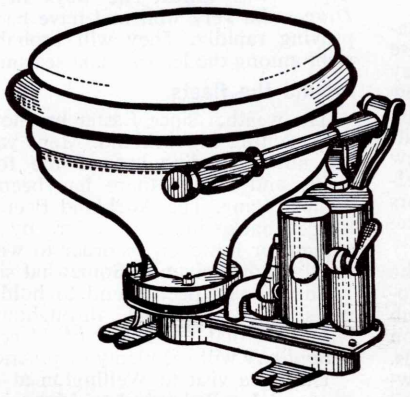

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busy completing his keeler and *Whispers* is laid up for the winter. I did meet Ken Cameron and Peter Neeves however. Peter used to sail *Sans Fait Rien* (I think) before going overseas. He has now degenerated (?) to an X class. Ken told me of a new Cherub being built in Wellington district. I hope we hear more of this in future.

More recently I received a letter from Barrie France of Levin who sails *Diane*. He says that there have been four regular starters for most of the past season including *Rhapsody* (Colin Dalziel's old boat). They have made several trips to the Manawatu Sailing Club at Foxton Beach where they now have three Cherubs. They also made a journey to Wanganui to support the sole Cherub there, *Simba* (ex David Selby). We are grateful for Barrie's offer to help anyone in the Levin area who wishes to build a Cherub and pass on this offer to readers.

I have had no news from Nelson although I wrote to ask about the fibreglass Cherubs we were told about in Napier. I was also hoping to hear more of the growing number of West Coast Cherubs. Perhaps some local member would like to write and tell us.

Wally Stringer in Dunedin informs me that the "fairy sailors" ceased sailing soon after the Leander Trophy was over. I gather that the cherubin, as usual, sailed on into the winter!

We were pleased to hear of Tony Atkinson's new Cherub *Ghibili*. To the best of my knowledge there are now five, if not six, fairly new Mk VII Cherubs in Dunedin. This augurs well for the future.

University Cherubs

Mark Paterson has been sailing in Dunedin during the last three years while attending varsity. This year he was selected as the Otago University Cherub representative in N.Z.U. Easter Tournament at Christchurch. He was sailing *Saffron* and apparently had a comfortable victory (see report in June SEA SPRAY).

From quite inauspicious beginnings many years ago, yachting has become one of the main university sports. The Cherub was chosen about 10 years ago as the boat to be used in tournament and since then the standard of both boats and crews has improved tremendously. N.Z.U. Blues, the highest university sporting honour a student can achieve, have to my knowledge been awarded to three Cherub sailors — Peter Walker, John Pether, and Bret de Thier as well as to others who sail Moths in the N.Z.U. Tournament.

Much of the initiative and credit for the growth in stature of university yachting has been due to people like Peter Willets, Jim Boog, Roger Craddock, and Gordon McKenzie. If this reads like an Otago University Graduates List this is not surprising. The Otago University Yacht Club has always been strong in enthusiasm and numbers, and this is in no way better illustrated than in the construction of a new clubhouse at the boat harbour in Dunedin. This project, conceived and constructed by the students and staff membership of the club, is a great asset to Dunedin as well as the university — and this brings me back full circle. A Cherub fleet is almost under way in Dunedin and will be based on the Otago University Yacht Club. We wish them every success.

Just on deadline time another meeting of the CCOA was held. A letter from Perth had been received to confirm Basil Wright's earlier telephone conversation. All boats supplied for the world champs will have two venturis and chain plates but no other fittings. Entry fee to the champs will be $A24 per boat and this will include the cost of all social functions. Free billets will be organised if required.

Also a letter from Peter Walker confirms the organisers for the world contest are going about it in a very efficient and businesslike way. He comments that the sailing area provides very good sailing and that prevailing weather conditions require skill in interpretation. Generally there is a light to moderate easterly in the mornings switching to a moderate to fresh sou'west-west wind in the afternoon. This change can occur any time after 10.30 a.m. An early change means a fresher afternoon breeze and a more consistent morning wind. Sea conditions are very short waves of varying size depending on wind and proximity to the shore. The winds shift a lot, but Peter says that with care and attention it is possible to predict what will happen.

A CCIA newsletter was also received which stated that the world champs will start on Friday 2 January, 1970.

A remit was received from the Australian Cherub National Council proposing that anodised aluminium Cherub insignias marked with the registered number of the boat be permanently fixed to the inside of the boat. The New Zealand CCOA decided this was an expensive way of "marrying" the hull to the sails and that carving or burning the number would be far more sensible if the principle was accepted. Accordingly, CCOA voted against the remit.

The finance sub-committee reported that preliminary approaches had been made to various firms and that thought had been given to publishing a booklet on the history of the Cherub class containing acknowledgments of firms who give financial assistance.

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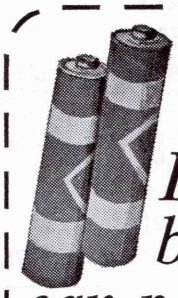

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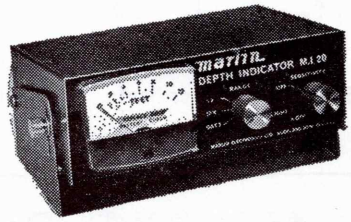

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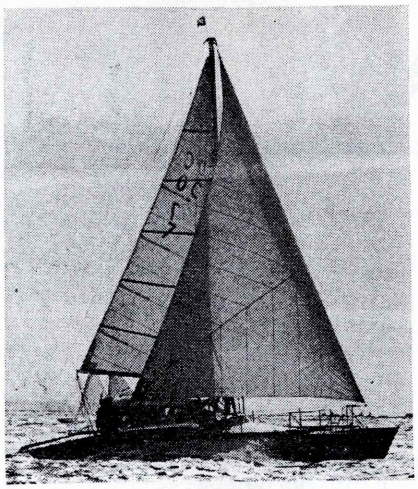

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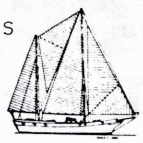

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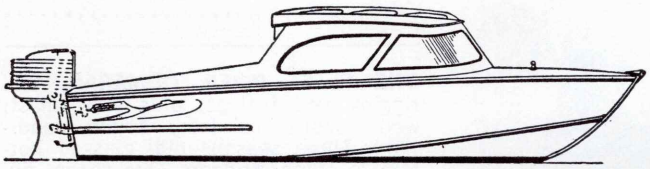

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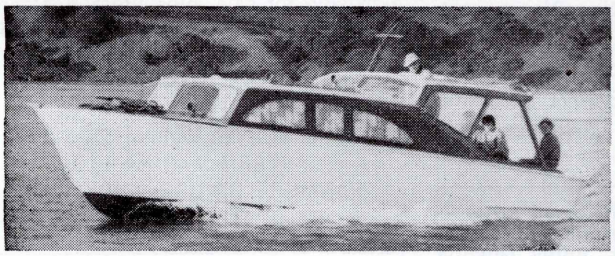

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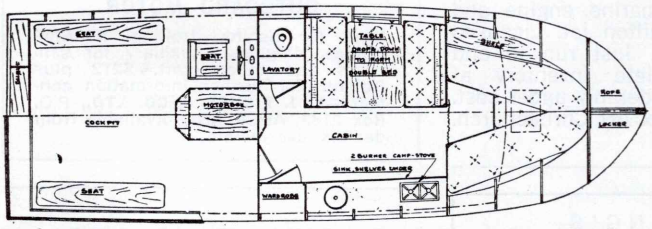
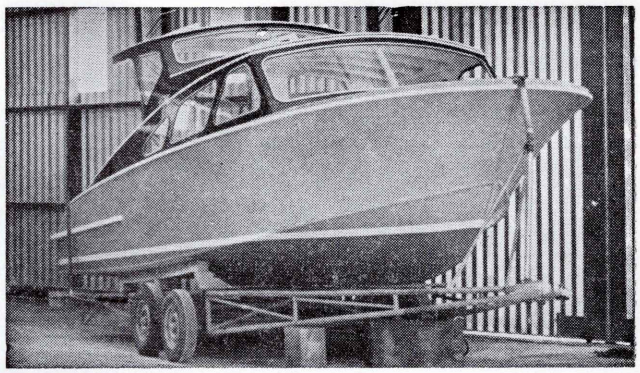


of engine s, even 60 or 100 h.p. Ford diesel, but a high powered petrol engine like the V/8s of 180 to 300 h.p. (with 1½ or 2-1 reduction) definitely recommended for best economy and top speeds to 30-40 m.p.h. Inboard/Outboard units are also recommended. Augustin boats show greater economy with the higher horsepowers and Augustin propellers. Serena deserves your closer attention, if you require a soft riding, safe family boat. Has two alternative interior arrangements. Our 8ft. praam Pup is the correct no-drag tender for high speed towing. (Plans $2.50). Complete Serena plans, $30



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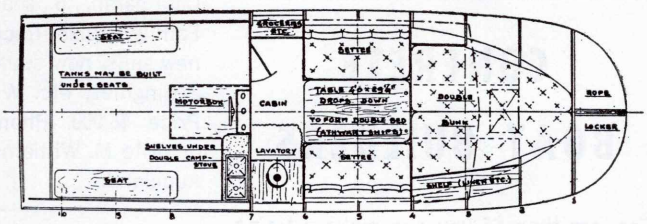
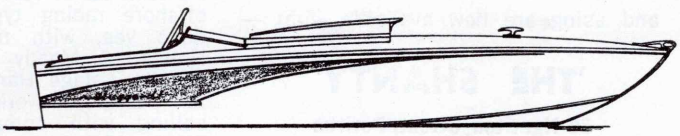


the 1964 Atlantic 100-mile offshore race. Shown on Augustin tubular trailer fitted with dual wheels. Plans of Cherie $15. Our 8ft. planing praam Pup ($2.50) is the tender to match this boat's speed.



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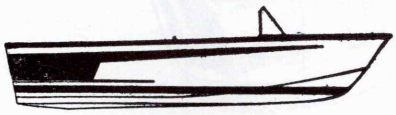

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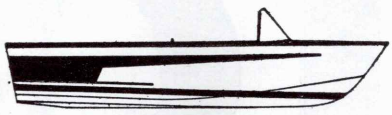

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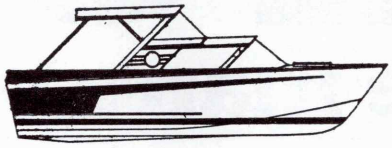

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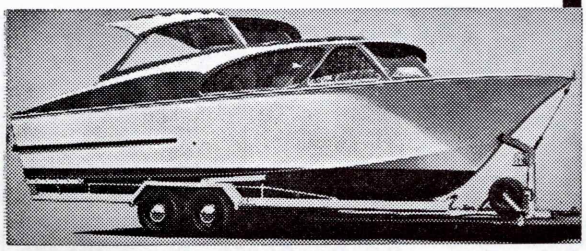

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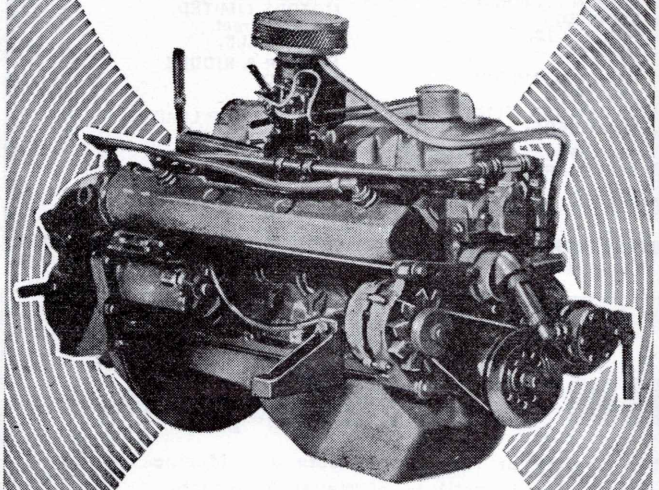

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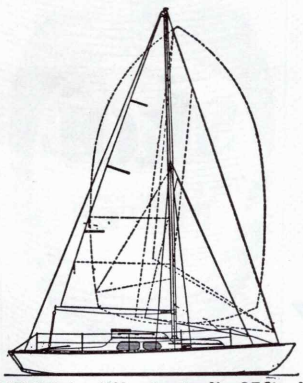

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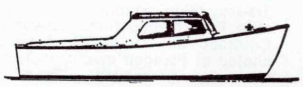

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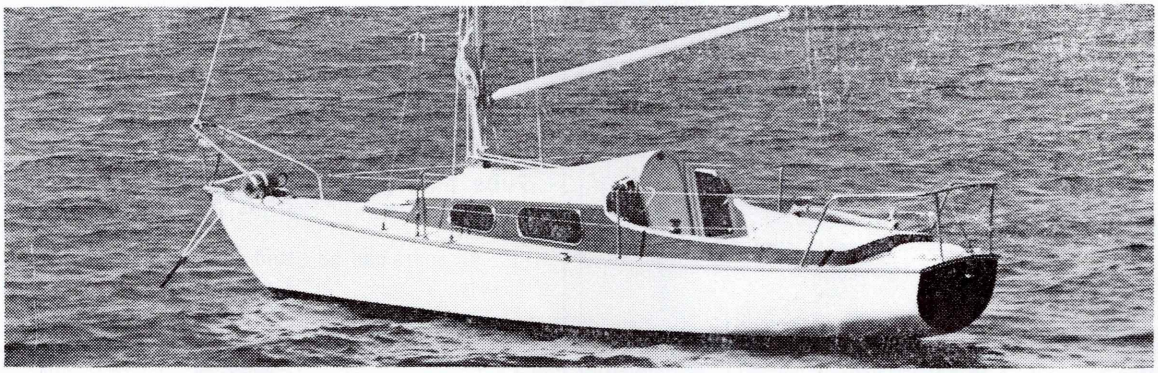

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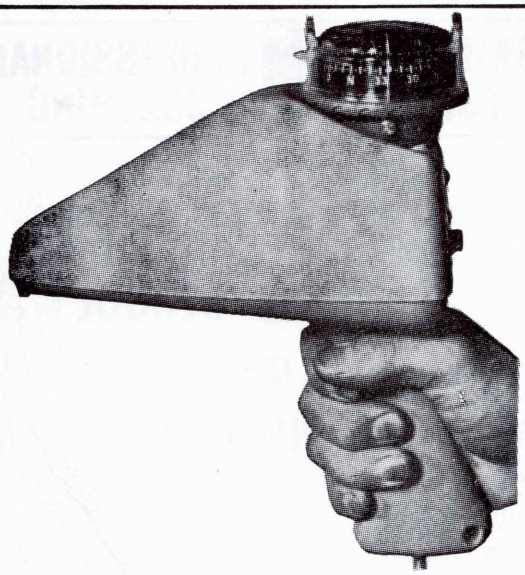

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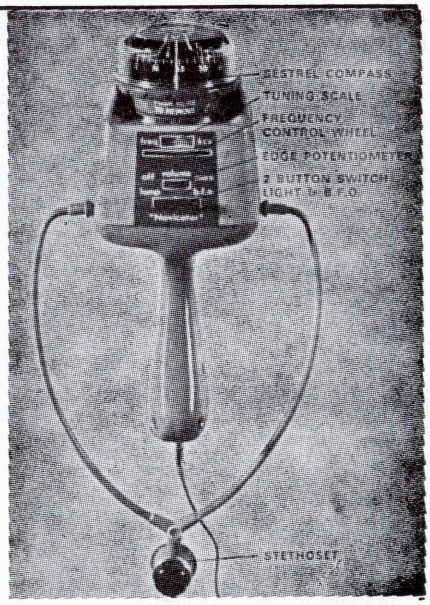

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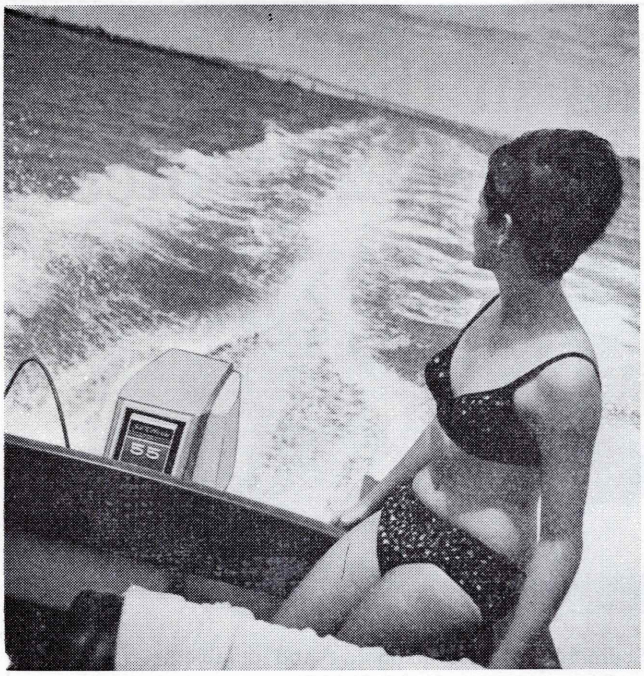

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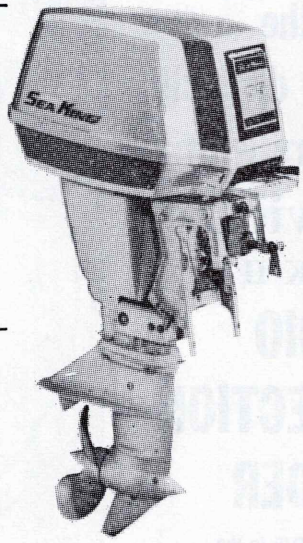

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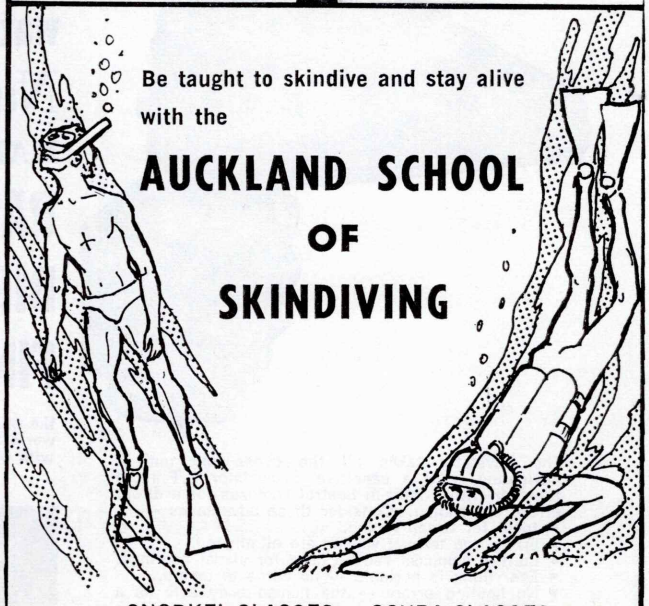

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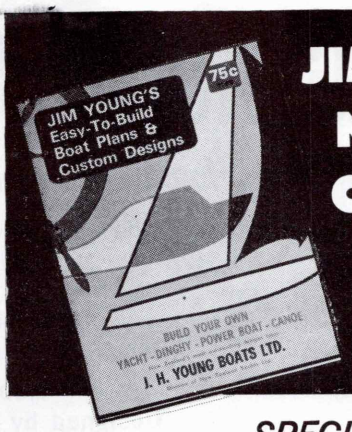

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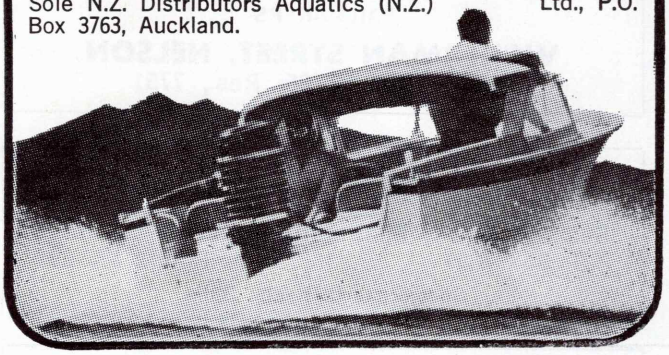

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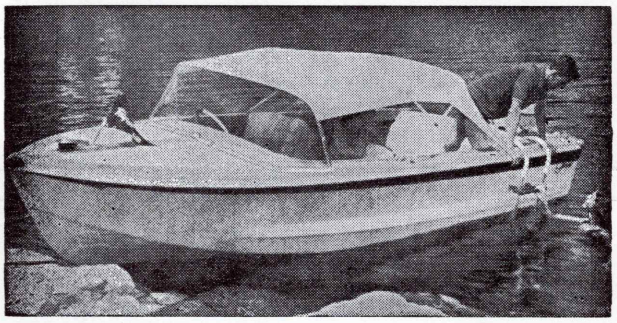

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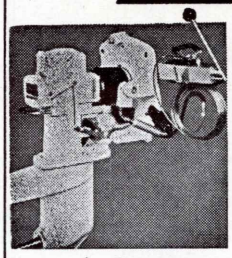

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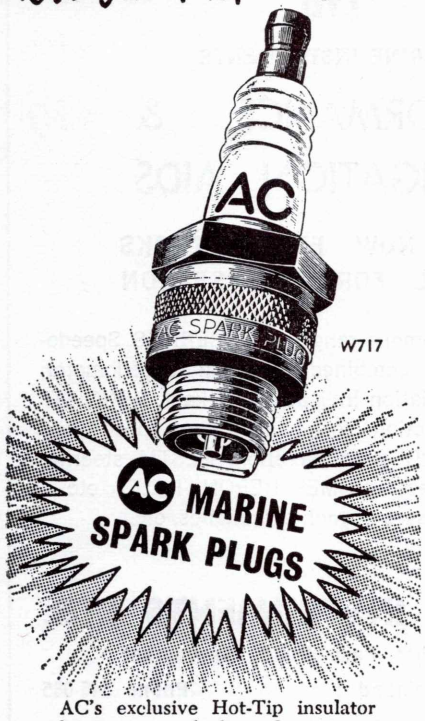

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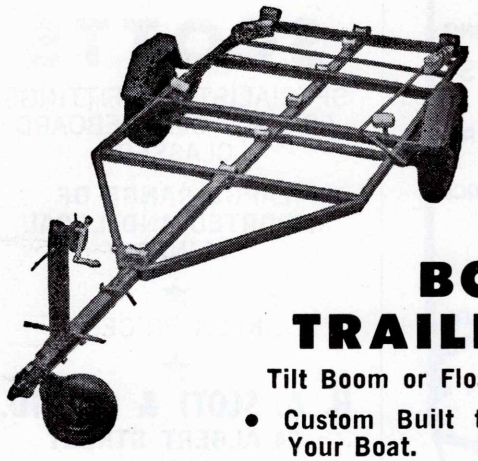

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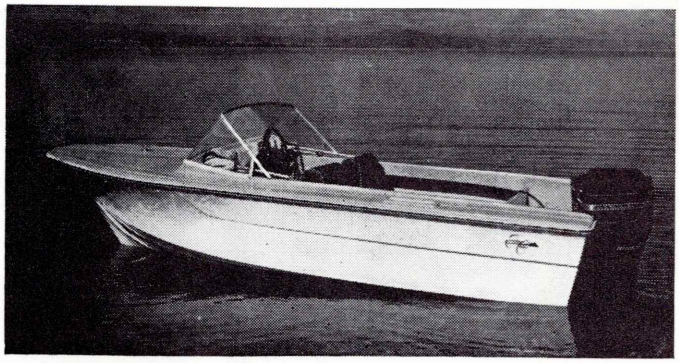

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